

Harvard University
Library of
The Medical School
and
The School of Public Health





Digitized by the Internet Archive
in 2013

<http://archive.org/details/harvardmedicalal37harv>

HARVARD MEDICAL *ALUMNI BULLETIN*

1496

Fall, 1962

7



*Bulldog in the Lion's Den.
Langdon Parsons '27,
New Director of Alumni Relations*



photo, Herman Goslyn

Dr. Harry Clyde Trimble

"If he is indeed wise he does not bid you to enter the house of his wisdom, but rather leads you to the threshold of your own mind."

(Memorial on page 2)

EDITOR

JOHN R. BROOKS '43B
25 SHATTUCK STREET
BOSTON 15, MASSACHUSETTS

EVELYN G. REBER
Associate Editor

EDITORIAL BOARD

ARNEST CRAIGE '43A
C. U. ENGLEBERT DUNPHY '33
JOSEPH GARLAND '19
ROLF LIUM '33
JOHN P. MERRILL '42
JOHN C. NEMIAH '43B
GEORGE S. RICHARDSON '46
J. GORDON SCANNELL '40
ROBERT S. SHAW '45
DAVID SWENSON '63
THOMAS A. WARTHIN '34

EDITORIAL ASSISTANT

LUCY L. DICKINSON



ASSOCIATION OFFICERS

JOHN H. LAWRENCE '30, *President*
WILLIAM R. PITTS '33,
President-elect
SAMUEL A. LEVINE '14,
Past-President
JOHN P. HUBBARD '31, *Vice-President*
JAMES H. JACKSON '43A, *Secretary*
BRADFORD CANNON '33, *Treasurer*

COUNCILORS

BENJAMIN W. CAREY '32
DAVID H. CLEMENT '35
HENRY L. HEYL '33
SYLVESTER B. KELLEY '29
JOHN P. MERRILL '42
CALVIN H. PLIMPTON '43A
AUGUSTUS S. ROSE '32
JOHN H. TALBOTT '29
HOWARD ULFELDER '36

DOROTHY MURPHY
Executive Secretary

HARVARD MEDICAL ALUMNI BULLETIN

VOL. 37

FALL 1962

NO. 1

The Cover: The appointment of Langdon Parsons '27 as Director of Alumni Relations, brings to the affairs of the Alumni Association and the Medical School an active clinician, one as warm as he is brilliant, an excellent teacher and scholar, whose papers are well-known throughout the professional world. Dr. Parsons, currently Professor and Head of the Department of Obstetrics and Gynecology, Boston University School of Medicine, and Chief of Gynecology at the Massachusetts Memorial Hospitals, received his A.B. degree from Yale in 1921. In addition to his responsibilities to his fellow alumni as Director, it is expected that Dr. Parsons will participate in teaching medical students, house officers, and residents, while simultaneously continuing his private practice. Photo, Bachrach.

Dr. Harry C. Trimble: Special Obituary	2
Along the Perimeter	5
Three Men in Tandem	14
A Whale of A Story	22
Editorial: Speculations Upon the Temporary Cessation of Research	24
From Shattuck Street to Geneva: Considerations on a Projected Move	26
Thomas Mayo Brewer, M.D. ... A Blackbird and Duck, Sparrow and Mole	32
Registration Day	36
Honors	44
Alumni Notes	45
Obituaries	51

Advertising: Milton C. Paige, Jr., 8 Fenway

Boston 15, Mass., CO 6-7510

Harry Clyde Trimble

1889-1962

Harry Clyde Trimble was born the first son of the Rev. Thomas Anderson Trimble at Geneva, Iowa, on March 7, 1889. He died after a short illness in Boston on Friday, July 20, 1962. His father entered the Methodist ministry in 1884, serving for 36 years during a time when vast areas were being settled by homesteaders. His mother, Mary Albanetta Wilkinson Trimble, was born in Chelsea, Iowa, on a homestead established by her father, a native of Donegal County, Ireland.

In this earnest home Harry and his younger brother, Homer, grew up; inherent in Harry from early boyhood was his appreciation of education and a desire to teach others. After graduating from Cornell College, Iowa, in 1910 (where he was awarded an honorary Sc.D. degree in 1958), he spent the next two years as a high school teacher. He then became an assistant in physics and biology at the Bradley Polytech. His experiences in these positions challenged him to broaden his educational horizons; in 1915 he enrolled at the University of Chicago as a graduate student in the department of organic chemistry. He received the M.S. degree in 1916 and the Ph.D. degree in 1918. For the ensuing six years he taught on the faculty of the University of North Dakota, where he promptly reached the rank of associate professor of chemistry. Ever alert to the development of new fields and new methods, his attention was attracted to biological chemistry.

Stimulated by a chance meeting with Otto Folin, Harry Trimble became a National Research Council Fellow in the department of biological chemistry at the Harvard Medical School for the year 1923-24. The following year, he was appointed an assistant professor in the department. At Harvard he seized upon the opportunity to apply to the investigation of metabolic problems the careful analytic procedures for components of blood and urine worked out by Otto Folin and his colleagues.

The first work Harry Trimble published at Harvard was in cooperation with the surgeon, S. J. Maddock '25: an investigation of the effect of insulin upon the sugar content of erythrocytes. They demonstrated that earlier reports of a marked fall in the glucose content of red cells without a concomitant change in plasma glucose after insulin administration were erroneous owing to faulty analytical procedures. In its careful attention to detail, this work was characteristic of all that Harry Trimble undertook. It was the beginning of a series of investigations in collaboration with Dr. Maddock and Benjamin W. Carey, Jr. '32, upon various aspects of glucose metabolism in normal and diabetic humans and animals. It led to a lifelong association and friendship with Dr. Elliot P. Joslin, Dr. Howard F. Root, and others interested in

diabetes at the Deaconess Hospital, where Dr. Trimble's advice was much sought after.

Another of Dr. Trimble's main research interests was uric acid metabolism. He was attracted by an early observation that in man and the chimpanzee uric acid is the end product of purine metabolism, while in nearly all other mammals this end product is allantoin. An important exception to this classification was noted by Dr. S. R. Benedict in 1916, who found that a dog of the Dalmatian breed excreted almost as much uric acid per unit weight per day as does an adult man. This finding led Dr. Trimble to develop a colony of Dalmatian dogs in order to study this metabolic abnormality. In collaboration with Dr. C. E. Keeler, the conclusion was reached that high uric acid excretion in the Dalmatian is inherited as an almost completely recessive, non-sex linked, unit character and that this biochemical characteristic is in no way associated with the gene complex producing the harlequin type of spotting found in the Dalmatian coach hound. Those who were associated with Dr. Trimble in the days of these studies recall his great delight in showing his "patented method" for collection of urine samples from his dogs: a large platter in which was mounted the replica of a fire plug.

Harry Trimble excelled as a teacher — he was at his best at the laboratory bench with a student. For nearly twenty years he was responsible for all the instruction given to the first-year dental students in the department of biological chemistry. During this period he also conducted a seminar for third- and fourth-year dental students which included individual theses. Not infrequently these theses involved original investigation that was done under Dr. Trimble's patient tutelage in his own laboratory at night and on weekends.

When the curriculum of the dental school was revised in the early forties so that dental and medical students

Dr. Trimble with Lady and her family, in 1928.



received their instruction together, Harry Trimble continued to keep a watchful eye on the dental students and to give them his patient guidance. His lectures were carefully and meticulously planned and usually delivered without resorting to notes. He took pride in being able to write on the blackboard unerringly from memory the chemical structure of all organic compounds discussed in his lectures.

In the yearbook of the Class of 1942, the Dental School historian recorded, "Long after the formulae and elements have been duly forgotten, we will all remember Dr. Trimble for his patience, consideration and friendliness."

Upon his retirement as Edward Stickney Wood Assistant Professor of Biological Chemistry in 1955, he was appointed Special Consultant to the Dean of the Faculty of Medicine. In this capacity he rendered valuable assistance in assessing the potentials of those who presented themselves as candidates for admission to the Harvard Medical School.

Dr. Trimble is survived by his brother, Homer. The brothers lived together at 145 Longwood Avenue, and were companions on various trips to the Cape and to other New England places that they had both grown to love.

Always loyal, always modest, always gentle, always thoughtful of others, Harry Trimble will long be remembered as a truly Christian gentleman.

ERIC GLENDINNING BALL

Reminiscences of an Admission Committee Member

When Dr. Harry Trimble slipped away on July 20, 1962, the Faculty lost a cherished colleague and the student body a thoughtful, wise advisor and a warm friend.

My acquaintance with Harry Trimble began more than a decade ago during my medical residency at the Peter Bent Brigham Hospital when his mother was, for a brief period, a patient under my care. Looking back, I remember him as a quiet, self-effacing man deeply concerned about his mother's illness yet uniformly polite and understanding of the problems facing an overburdened house-staff. If the care and attention given her was less than the ideal that he wanted, his remedial efforts characteristically took the form of gentle suggestion backed by careful thought rather than complaint or criticism.

Our friendship really began several years later when we served together as members of the Admission Committee of the School. We seemed to share similar views concerning the characteristics deemed desirable in medical students, for we often found ourselves aligned together in urging the admission of some candidate whose record we felt fell short of his true motivation or ability.

After one or two such episodes, we began to compare impressions of candidates gained during interview and in



Dr. Trimble and "Keeler's Fire Hydrant" in 1955.

time came to discuss at length the usefulness of various means of appraising potential students. Although I was apt to accept the dicta of others or my subjective impression concerning the validity of pre-admission tests, Harry Trimble was not satisfied with such lack of precision. Applying his characteristic thoroughness, he began correlating performance in the Harvard Medical School with candidates' academic records, test scores, and his own impressions. Perhaps because I had told him often of my uncertainty when trying to evaluate candidates, he began sharing with me the results of his investigations. He was able to make clear the importance of various personality and ability factors that seemed to auger well on a candidate's chances for success as a medical student.

Perhaps the most striking aspect of his ability as a member of the Admission Committee, however, lay not so much in the care and thoroughness of his objective studies as in his ability to obtain, in a brief interview, a remarkable insight into the personalities, interests, and ambitions of young men and women. We often discussed ways in which this was done and from him I learned many ideas about the conduct of interviews that have proved useful ever since. Despite his instruction he was always better able to extract information than I and often brought out aspects of people unsuspected by any other interviewer. The nature of his secret I do not

know but I strongly suspect that it resided in his remarkable ability to indicate his interest in, and desire to understand, the person with whom he was speaking.

Although common interests in the selection and performance of medical students formed the basis of our friendship and led to frequent contacts, our discussions ranged over many topics — the beauty of the Canadian Rockies, the details of my research, in which he showed unfailing and highly gratifying interest, and the oddities of circumstance and human behavior that sometimes lead to major events in people's lives. In regard to the latter, he told me one day with typical quiet humor how it came about that he, a native of Iowa who had never seen the East Coast, moved from a teaching post in the University of South Dakota to his life's work at the Harvard Medical School. I treasure the story for what it reveals of his humor about himself, his curiosity, imagination and tenacity, his acceptance of circumstance, and his devotion and loyalty to the institution in which he worked.

Harry Trimble, then a young associate professor at South Dakota, attended a meeting of biochemists in Chicago one day in 1922. One of the speakers was Dr. Otto Folin. In the ensuing discussion of Dr. Folin's paper, many well known men asked so many questions that there was no time for the reticent young man from South Dakota. The next day, as he walked down the platform to take a train home, Harry Trimble spotted the solitary figure of the famous Folin boarding the same train several cars ahead. The question to which he had wished an answer the day before was still bothering him and Harry Trimble determined to find Folin and take advantage of their presence on the same train to ask him the answer.

Walking forward, he found Folin alone, reading. Having introduced himself and explained the circumstances of his intrusion, he posed his question. A discussion of Trimble's work pleasantly consumed the time until Folin reached his destination. On parting, Folin suggested that, should Trimble ever be in Boston, he would be a welcome visitor to the department of biochemistry. A few weeks later a letter came from Folin inviting Trimble to spend a year as a Research Fellow in his laboratory — a year that grew into a lifetime of teaching, investigation, and service at Harvard.

On Monday, July 23, the flag of the Medical School flew at half-mast and the sad news passed around the Quadrangle. Harry Trimble's death has left a large gap in the lives of his friends.

GEORGE NICHOLS, JR.

Dr. Berry's Comments at the Memorial Service

It is a privilege that I shall treasure all the days of my life to have been asked by Dr. Trimble's brother,

Homer, to voice on behalf of the Faculty and Staff of the Harvard Medical School the love and respect that all of us had for Harry, our devoted friend and ever-faithful colleague of almost 40 years. All of those present today will understand instantly what one of the School's distinguished Alumni was saying, when he put the following words in a letter to me, written at the time of Harry's retirement from the Edward S. Wood Chair: "The greatest personal relationship to the Medical School for me and for many of my fellow graduates is through Harry Trimble."

In all that he did, Harry Trimble always went the last mile. No effort was too great. If he undertook to do a job, he did it thoroughly, to the very best of his ability. He set his own standards, to which he constantly aspired, whether the activity was teaching, research, or delving into the past. In the notes that he assembled on the history of chemistry and biochemistry at Harvard and at the Medical School, or in the commemorative volume on Otto Folin, for the preparation of which he was responsible, his tireless effort was immediately apparent.

Harry was always a devoted son, supporting his mother for many years after the untimely death of his father, a Methodist minister. Likewise Harry was extremely kind to his students, particularly to those having difficulty. His knowledge and wisdom were always at their call, just as they were to his colleagues. The late Dr. Joslin and his associates frequently sought Dr. Trimble's help in matters pertaining to diabetes.

Without ever lowering his high standards, particularly as he applied them to himself, Harry was always modest, always gentle, always loyal, and always thoughtful of others. These characteristics made him invaluable in the years since his retirement from active teaching in 1955, to the activities of the Committee on Admission. To the selection of students, he brought his excellent insight to bear on the assessment of their potential. During the last year of his life, he interviewed no fewer than 400 of our applicants.

Kahlil Gibran, the Lebanese poet, philosopher and artist, expressed beautifully in *The Prophet* the understanding of the great teacher. I quote from this poem because Gibran's words not only have profound meaning for all of us but seem to me to epitomize the superb teacher to whom we are here to pay our last respects.

No man can reveal to you aught but that which already lies half asleep in the dawning of your knowledge.

The teacher who walks in the shadow of the temple, among his followers, gives not of his wisdom but rather of his faith and his lovingness.

If he is indeed wise he does not bid you enter the house of his wisdom, but rather leads you to the threshold of your own mind.

Harry Trimble helped hundreds and hundreds of students to understand these profound truths.

Along the Perimeter

Massachusetts Mental Health Center

On The Eve of Its Semi-Centenary — A Brief History

As early as 200 B.C. the ancients in Egypt and the Far East used surprisingly "modern" methods in the treatment of their mentally ill. Their wisdom was obscured, however, by the dark ages which prevailed in mental health until long after the Renaissance had touched almost every other field of human endeavor. Not until the 19th century did medieval ignorance and cruelty begin to give way to more farsighted, humane treatment.

Charles Dickens visited Boston in 1842 and, impressed by the progress he witnessed at the Boston Insane Hospital, was prompted to write in his "American Notes":

"Every patient . . . sits down to dinner every day with a knife and fork. . . . At every meal, moral influence alone restrains the more violent among them from cutting the throats of the rest; but the effect of that influence is reduced to an absolute certainty, and is found . . . a hundred times more efficacious than all the straight waistcoats, fetters, and handcuffs that ignorance, prejudice and cruelty have manufactured since the creation of the world.

"In the labor department every patient is as freely trusted with the tools of his trade as if he were a sane man. . . . For amusement they walk, run, fish, paint, read, and ride out to take the air in carriages provided for the purpose. They have among themselves a sewing society to make clothes for the poor, which . . . never comes to fisticuffs or bowie-knives as sane assemblies have been known to do. . . .

"It is obvious that one great feature of this system is the inculcation and encouragement, even among such unhappy persons, of a decent self-respect."

The Boston Insane Hospital, only four years old at the time of Dickens' visit, might be called the precursor of the Massachusetts Mental Health Center. It had been opened in response to the 1836 demand of the State Legislature for a new facility to relieve the overcrowded wards of the Lunatic Hospital at Worcester. In 1908 the Boston Insane Hospital was purchased by the Commonwealth and

renamed Boston State Hospital. The Boston Psychopathic Hospital, architecturally modeled after Kraepelin's clinic in Munich, was opened as a department of this institution in 1912, with Dr. Elmer Ernest Southard '01 as director. In that first year of operation the Hospital took over 1500 patients. (In 1961 the Massachusetts Mental Health Center admitted 609 to the House and 198 to the Day Hospital; approximately 1300 persons were seen by the outpatient department in a total of over 15,000 separate visits.)

Since 1909 Dr. Southard had been pathologist for the Massachusetts Board of Insanity and Bullard Professor of Neuropathology at Harvard Medical School. Only thirty-three, he possessed extraordinary energy and foresight and a brilliant education, not only in medicine, but in philosophy and linguistics. He turned his talents to



Dr.
Southard



photo, Dave Lawler

The central building of the Massachusetts Mental Health Center.

many and varied projects, including the establishment of a neuropathological lab, the social service and out-patient departments, and a good library. He insisted on good laboratory medicine and adopted the Wasserman test and lumbar puncture as routine in the Hospital. He also developed the teaching and testing facilities, and there, during the first world war, Professor Yerkes evolved the Army Alpha Test.

Dr. Southard's main interest lay in neuropathology. Through his work the Hospital became one of the great centers of neuropathology in the nation, and his book, *Neurosyphilis*, was a standard text for many years. His colleague in the research and writing of this book was a young man he brought to the Hospital as an intern in 1914 — Dr. Harry Caesar Solomon.

Dr. Southard was also interested in social work and psychology, including industrial psychology. Under his auspices time and motion studies and other tests were conducted at the Hospital. With Miss Mary C. Jarrett, first director of social service at the Hospital, he created the first training program in psychiatric social work and wrote a book, *The Kingdom of Evils*, which Miss Jarrett published after his death, in 1922. Their ideas on "social psychiatry" are considered amazingly contemporary.

In February 1920, Dr. Southard died, and in December of that year, the Boston Psychopathic Hospital was made a separate institution with its own board of trustees.

Dr. Charles Macfie Campbell, appointed director in 1921, was devoted primarily to the study of psychological and psychogenic factors. His chief medical officer, Dr. Karl M. Bowman, concentrated on physio-pathological matters, and together they maintained the diverse and balanced program at the Hospital. During their administration there was considerable interest in the effect of en-

vironmental stresses. Efforts were made to perfect the use of artificial fever. In addition, three long-term projects developed in this period: research on neurosyphilis; studies of the psychoses, supported by the Laura Spellman Rockefeller Foundation; and fellowships of advanced training, financed by the Commonwealth Fund.

With the 1943 appointment of Dr. Harry C. Solomon '14 as director and the subsequent cessation of World War II began a period of increased activity and development, made possible by increased financial, legislative, and public support of mental health. Dr. Solomon found the Hospital suffering from a wartime shortage of trained staff. Recognizing the need for expanded teaching, he instituted an improved program for the medical students from Harvard, Tufts, and Boston University. The fourth year clerkship in psychiatry was created, and the students' instruction in the other three years strengthened, with the result that their interest and competence in psychiatry improved considerably. Sociology and social work students from Boston University, Boston College, Smith, and Simmons came to study, some to stay for training. Today the facilities are also used by the Boston School of Occupational Therapy, Boston School of Physiotherapy, and nearby theological schools. Most recently have come students from the new Harvard department of social relations.

The emphasis in training has tended increasingly toward dynamic psychiatry as the major theoretical framework and growing reliance upon supervised work with individual patients as the main learning experience. In research, too, there has been some shift of emphasis — from biological studies to intensive collaboration with social science and rehabilitation. There has been, however, extensive work done toward the needs of chronic psychotics, particularly schizophrenics.

As the result of growth of active clinical services at nearby institutions the Boston Psychopathic Hospital was enabled to retire from its former duties of reception, diagnosis, and disposition of all acute mental cases in the Boston area. The staff then turned its attention to intensive care of selected admissions from all sections of the Commonwealth. Treatment became the prime mission of the Hospital, and many new methods were introduced, including electric shock treatment, insulin coma therapy, and prefrontal lobotomy. The area of individual and group psychotherapy was further developed.

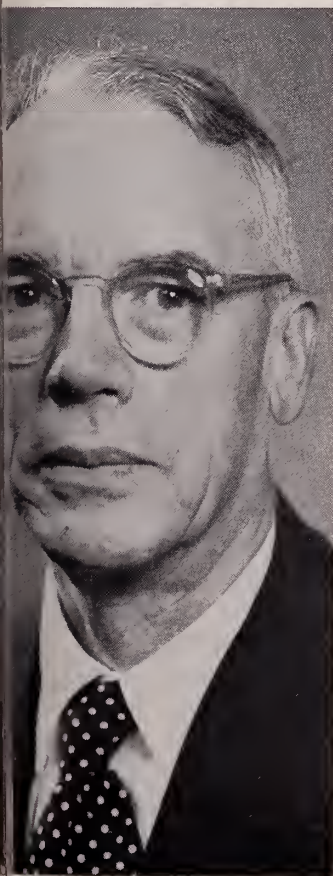
Boston Psychopathic Hospital was among the first mental hospitals in the country to organize an out-patient department. The area of rehabilitation received impetus, and efforts were made to make the patient feel, even while in the hospital, less "institutional" and more attractive; male and female patients were encouraged to share facilities in the occupational therapy department and cafeteria; and more recreational facilities were provided. By the early 1950's there were work groups and programs for vocational training.

In 1956, the old Boston Psychopathic Hospital, now an "open hospital," was rechristened the Massachusetts Mental Health Center.

Dr. Solomon retired in 1958, and Dr. Jack R. Ewalt succeeded him as the Center's Director. He was at that time Commissioner of Mental Health, an office which Dr.

Solomon now holds. From its inception as the Boston Psychopathic Hospital, the Center has been guided by men who were also leaders in state and other mental health activities. Before coming to Massachusetts Dr. Ewalt had served as a medical administrator at the University of Texas. Under his leadership the post-war drive for growth and diversification has continued. Additions and changes include two new clinical research services — one for clinical and metabolic illness and another for investigation of long-term therapy of chronic schizophrenia. Since 1951 there has been a separate children's unit, and in 1959 a school was opened with two full-time teachers. Other new patient facilities range from the swimming pool to the vocational rehabilitation service located across the street from the Center. Efforts to aid patients' transition from hospital to society have resulted in the Day Hospital, Day Care program, Emergency Service, Community Clinic, Extension Service, and the Half-Way House.

As for future plans, the avenues open are so diverse as virtually to defy intelligent conjecture. Recently the state legislature provided for the purchase of the block bordered by Fenwood Road, Francis Street, Vining, and Brookline Avenue. At the present time it is projected that the twenty-two buildings that now stand there will be replaced by units for the treatment of children and adolescents, facilities for rehabilitation and for research in mental retardation and geriatrics. This seems a good beginning for the next fifty years.



The Einstein Award and Medal of the Lewis and Rosa Strauss Memorial Fund were presented to Dr. Shields Warren '23 by Admiral Lewis L. Strauss at a small luncheon in Washington, D.C., on September 20, 1962. In presenting the \$5000 award, Admiral Strauss cited Dr. Warren the "worthy inheritor of a great academic tradition begun by his grandfather and father — himself first . . . among the healers and physicians of the age of atomic energy — a scientist whose many and important contributions . . . have stripped the development of atomic energy of its unreasoning fears . . . while, at the same time, identifying the valid hazards for those who must work with them — a man who has instructed hundreds of young men in the pathology of atomic medicine — whose dream of a great cancer research institute in New England he has made a reality — who became the first director of the Division of Biology and Medicine for the U.S. Atomic Energy Commission — who wears graciously the many honors heaped upon him by his peers. . . ."





The Harvard Medical Chorus, Miss Joan Reinthaler conducting, in its Spring Concert at the Gardner Museum in Boston.

Harvard Medical Chorus and Orchestra

Since that fateful moment on golden Olympus when the great healer Apollo first picked up the lute, music has been linked with medicine. Its soothing properties have been found useful not only in the treatment of the patient but also the overworked and distracted physician and medical student. In keeping with this ancient tradition is the Harvard Medical Chorus, established in 1958 by Dr. James E. C. Walker (an avid "Barbershopper" during his undergraduate years at Williams College) with the help of Dr. Phyllis T. Bodel '58. The group specializes in classical music with occasional excursions into folk music and carols.

The Chorus is open not only to students, administration and alumni of the Medical School and its affiliated hospitals, but to wives, nurses, technicians and the clerical staff. From a membership of forty in 1958 it has grown to include over a hundred enthusiastic music lovers. Now entering its fifth season, the Chorus will hold its rehearsals each Tuesday from 6:00-7:15 p.m. in the Boston Lying-In auditorium, and though the first meeting was October 2, there is a possibility that newcomers may still join. Anyone interested should make inquiry at the next rehearsal. (Those whose enthusiasm exceeds their confidence will be relieved to learn that no tryouts are necessary, except for the small madrigal group.)

Although during its first year the Chorus was conducted and directed by Dr. Walker, for the last three seasons Miss Joan Reinthaler has been conductor. She received her B.A. degree from Pembroke and her M.A.T. degree from Radcliffe and has conducted various groups at these schools. She is now teaching mathematics and music at the Buckingham School in Cambridge.

In preparation for the December concert the Chorus will be working on 12 to 14 short pieces, including several folk-songs, madrigals, and motets. Although the program for the May concert is still in the formative stages, it will probably consist of four or five longer works, possibly including compositions of Beethoven and J. S. Bach.

Anyone associated with the medical area who plays an instrument will doubtless be pleased to learn also of the orchestra which Dr. Walker is organizing this fall. Announcements have been posted since October 1, and tryouts were held during the second week of the month, but as with the Chorus, there may still be hope for those who have been working so furiously as to miss the notices if immediate action is taken. Dr. Walker may be contacted at the Peter Bent Brigham Hospital for further information.

The orchestra will be conducted by Mr. Joseph Raposo, who received his B.A. degree in music from Harvard in 1958. Mr. Raposo followed his degree with two years' study at the École Normale de Musique de Paris, then returned to the Boston area where he has been teaching and composing. During the summer of 1961 he was composer for the Loeb Theater in Cambridge. Although much of his work is classical, he has also composed the music for several Broadway and off-Broadway plays. His latest effort is Bertold Brecht's "A Man is a Man," which opened in New York in September and in which he was assisted by Eric Bentley, theater critic and professor of literature and dramatic arts at Columbia.

The repertoire of the new orchestra will, of course, depend somewhat on the size and composition of the group, but Mr. Raposo is particularly interested in including works of the Classical Period and perhaps a few by modern composers such as Darius Milhaud.

Dr. Robert Shapiro Appointed

Dr. Robert Shapiro became, on September 1, Harvard's Professor of Radiology at the Beth Israel Hospital and Radiologist-in-Chief there. A roentgenologist with broad interests and experience in medicine, pathology and physiology, Dr. Shapiro has been closely associated with the planning of the physical facilities for the renovated department of radiology at Beth Israel Hospital. These new facilities, to be completed soon, will provide for a substantial expansion in the available resources for diagnostic and therapeutic radiology. Dr. Shapiro succeeds Dr. Felix G. Fleischner who retired in 1960 to become Clinical Professor of Radiology, *Emeritus*.

"Dr. Shapiro's appointment," said Dr. Berry, "will continue at the Beth Israel Hospital the high standards of teaching, research and patient care in terms of diagnostic roentgenology and radiation therapy. Dr. Shapiro is held in high regard by his colleagues as an effective teacher and clinician. His two-score contributions to scientific literature reveal his astute clinical acumen as a physician and his wide knowledge of chemistry. This combination is well illustrated by his basic investigations on the use of metal chelates in contrast radiography."

Dr. Shapiro received his B.A. and M.D. degrees from the University of Pennsylvania and, prior to coming to Harvard, was associate clinical professor of radiology at the Yale University School of Medicine and chairman of the department of radiology, The Hospital of St. Raphael, in New Haven. He is a diplomate of the American Board of Radiology, and a member of the American College of Radiology, the Radiological Society of North America, and the American Roentgen Ray Society.

Dr. Shapiro



Loeb-Lehman Gift Endows Chair

A new chair, to be named the Adele Lehman Professorship, has been made possible by two gifts to A Program for Harvard Medicine of \$250,000 each, from the Adele and Arthur Lehman Foundation and from Mr. John L. Loeb. This professorship is the eighth established at Harvard Medical School and the Associated Teaching Hospitals since the Program began.

A long-time benefactress of the University, Mrs. Lehman has also contributed much toward the improvement of community health and welfare. She has served as president and, subsequently, honorary chairman of the New York Service to the Orthopedically Handicapped and as honorary chairman for the Women's Division of the Federation of Jewish Philanthropies. She and her late husband, Arthur Lehman, Harvard 1894, contributed the funds to Harvard to build Lehman Hall in Cambridge. In memory of her husband she and members of the Lehman family established the Arthur Lehman Fund for fellowships in 1936. Mrs. Lehman is also founder and president of the Arthur Lehman Counseling Service.

Mr. John L. Loeb, whose family gave the Loeb Drama Center to the University, graduated from Harvard in 1924 and is a senior partner in Carl M. Loeb, Rhoades & Company. He is married to the former Frances Lehman.

A member of the Board of Overseers and of the Executive Committee of the Program for Harvard Medicine, he also served on the President's Committee for the Program for Harvard College, which successfully completed its \$82.5 million campaign for undergraduate education two years ago. Mr. Loeb serves also on the Board of Governors of the New York Hospital, as a director of the Beekman Downtown Hospital, and as trustee of Montefiore Hospital.

In accepting this generous gift Dr. Berry commended the foresight of the donors in omitting all restriction as to the particular department of the School that the chair will represent. "Such flexibility is invaluable," he said, "in assuring that the chair will always support a distinguished scholar working on the frontiers of medical knowledge — wherever these frontiers may be."

The **PROGRAM FOR HARVARD MEDICINE** has passed the halfway mark toward its goal of \$58 million. As of September 1, the total in gifts, pledges, and bequests from foundations, corporations and individuals had reached \$29,753,499. Helping to swell the total are several large, unrestricted gifts: \$1,100,000 from the Vincent Astor Foundation of New York City, \$100,000 from the United States Steel Foundation, and \$250,000 from the Surdna Foundation of Yonkers, New York.

Dr. Frederick H. Verhoeff, Ophthalmology's Senior Citizen

At age 88 Dr. Verhoff, professor of ophthalmic research, *emeritus*, at Harvard and erstwhile Director of Harvard's Howe Laboratory, is unquestionably ophthalmology's senior citizen. Two full generations of ophthalmologists have developed under his influence. He has posed many of the questions and supplied a full share of the answers that have directed the course which ophthalmology has taken in this twentieth century. Emerson's adage, "History is but the lengthened shadow of a great man" is most appropriate.

Dr. Frederick Hermann Verhoeff was born in Louisville, Ky., in 1874. One could conceive, in a whimsical sort of way, that this was significant timing, that he was born to carry on a tradition of research on the eye. It had not been many years previously that Virchow had made leucocytes in the cornea the subject of his inaugural dissertation. The controversy as to whether these corneal leucocytes came from the circulation as postulated by Cohnheim or from fixed tissue cells, as von Recklinghausen would like to have believed, was a major issue in 1874.

The origin of corneal leucocytes was still so controversial in 1878 that the peripatetic William H. Welch, who was to influence Dr. Verhoeff's life crucially years later, was in this year assigned the task of repeating Virchow's experiments in von Recklinghausen's laboratory. The results were never published, for the cautious Welch knew well enough the psychologic overtones of the von Recklinghausen-Cohnheim conflict. But this contact with the eye could well have been one of the factors that led Welch to direct Verhoeff into a career of ophthalmic pathology a quarter century later.

During this time Frederick Verhoeff was growing up in Louisville, the grandson of a Dutch immigrant who had fought under Blücher in the Battle of Waterloo and the son of a prosperous merchant-citizen who had built the first grain elevator south of the Ohio River. Perhaps the most revealing ophthalmological symptom in the young Verhoeff was his preoccupation with a camera at the age of 12. A photographer-neighbor excited the boy's curiosity and marked him an experimentalist in optics. It was then, Dr. Verhoeff believes, that he decided to become an oculist. After finishing private school, and with his goal still medicine, he left Louisville for Yale (Sheffield Scientific School) because it offered the best premedical course in biology. He enrolled in the third Johns Hopkins



photo, Dr. F. P. Smart

Dr. Verhoeff in a reflective mood — at a meeting of the Wilmer Ophthalmological Institute in 1960.

Medical School class and became, in 1899, the first ophthalmologist to graduate from that institution.

The early seeding of optics in the boy Verhoeff bore its first fruit when he was a senior in medical school. The first three papers of his bibliography of well over 200 articles appeared in the year of his graduation. All three dealt with optics, and one was an invited communication presented before the austere American Ophthalmological Society!

Another and more potent influence on Verhoeff's ultimate career was a fortuitous one. He happened to live in the same house as that bachelor professor of pathology, Dr. Welch. It is not evident that Dr. Welch took any personal interest in him or even directed his interest in pathology. Yet when Dr. Welch was asked by his former student, Dr. Councilman, then pathologist at the Harvard Medical School, to suggest a full-time pathologist for the Massachusetts Eye and Ear Infirmary, Dr. Verhoeff was immediately nominated. That Verhoeff had not had much experience in pathology did not seem to matter. Welch said he could learn as he did it. And so he did, to become America's most distinguished ophthalmic pathologist.

Verhoeff's reception in Boston was not one of unadulterated cordiality; nor was his salary of \$650 par-

ticularly munificent. In the first place the clinical staff had unsuccessfully attempted to do their own pathology, and substitute measures are not known to engender benevolence. We are told that Dr. Verhoeff's uncompromising forthrightness seemed contemptuous to his clinical peers. But the Massachusetts Eye and Ear Infirmary had a resident pathologist for a period of two years. His functions bore little semblance to what is expected of a comparable incumbent today.

Not only did Verhoeff do the autopsies (because deaths from ear and sinus infections were then frequent) and make the definitive diagnoses, but he had to do all the sectioning, staining, mounting of slides and preparation of solutions himself. He was a bacteriologist as well as a pathologist. He also did the photography and, when projection equipment was not available, he made his own. When the apparatus needed repairing, he did it himself. (Once he developed mercury poisoning after repairing a thermostat on the sterilizer. Apparently mercury had been spilled in the vicinity of a hot air vent near his microscope.) He had no secretary and wrote out all the reports by longhand or typed them on his own typewriter.

Verhoeff learned not only eye and ear pathology but he proved to himself his interest in ophthalmology and proved to others his unique qualities. After two years of this baptism by fire, he went abroad for the customary schooling on the continent and there observed such persons as Fuchs in Vienna, Haab in Zurich and Parsons in London. He was to be their counterpart in America.

In 1907, some time after his return to Boston, a pathology laboratory was constructed at the Infirmary according to his design. Here a series of studies on eye pathology began, and a center for training ophthalmic pathologists was instituted that continued with the Verhoeff stamp until 1932 when he resigned to become Director of the Howe Laboratory. It would be hard to say whether the most significant consequence of this quarter century of the Infirmary's "Path Lab" was the stream of practical observations, the host of trainees, or the image created by Verhoeff of intellectual honesty and aversion to hypocrisy.

During this period Dr. Verhoeff became a clinician and surgeon of distinction as well as a pathologist. He proved the mutual fruition of ophthalmic practice and ophthalmic pathology. His name is attached to surgical instruments and ophthalmic procedures as much as it is to elastic tissue stains and methods of eye pathology.

His interest in optics continued and, relieved of his duties as pathologist, he returned more vigorously than ever to his interests in binocular vision and stereopsis. To some of us his *Theory of Binocular Vision*, published in 1935, is a creed.

Retired from his active academic post at Harvard as professor of ophthalmic research in 1940, Dr. Verhoeff began an active clinical practice in his office on Commonwealth Avenue. This he continued until ill health forced his retirement three years ago. Since then, however, he

has attended many medical meetings, including the annual meeting of the Ophthalmic Pathology Club in Washington, D. C., and has participated in the discussions with typical Verhoeff vigor.

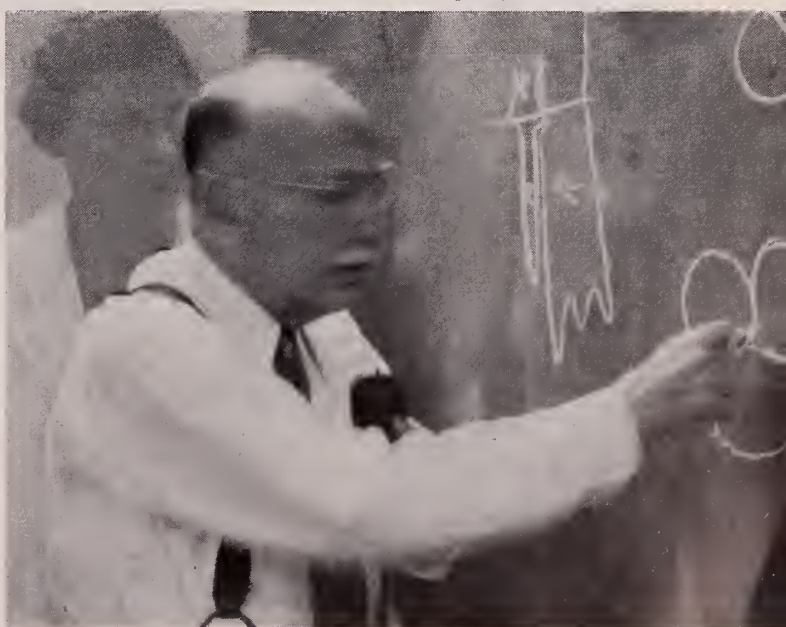
Those of us who have known and worked with Dr. Verhoeff have developed a highly personal attachment to him. We knew he was not always right, but we knew his evidence was firsthand, and we respected his logic. We took no offense at his satire because we knew it to be warranted. We also knew that even when he was castigating us he had the same fondness for us that we did for him. He may have appeared egocentric at times but this is probably a necessary quality of the creative scientist, and Dr. Verhoeff is too honest to hide it. He was not born to the age of bon mots. He did not indulge in them himself — feeling that to do so would be perjury — but he was often victimized by them. He may have been led to believe things which others said in the manner of social parlance. Once after a particularly lavish panegyric he was moved to say that he considered himself most unworthy of the eulogy. He knew he was ignorant; others were just more so.

Those of us who know him well consider him a most humble person. Rarely has one in a comparable position of authority sought out and accepted contrary opinions of interns, residents, and students. As had William Beaumont 150 years before, Verhoeff considered himself a "humble enquirer after truth." More often than not, those who were the butt of his criticism had deviated from the truth. He has had little use for secondhand opinions or unsupported dogma. The only real authority for Dr. Verhoeff is truth as revealed through direct observation.

DAVID G. COGAN '32

The "typical Verhoeff vigor" in action: taking issue with some electron microscopists for their interpretation of the external limiting membrane of the retina at the 1962 meeting of ophthalmic pathologists.

photo, Dr. T. Kuwabara



Dr. Richard B. Cattell Succeeded by Dr. Herbert D. Adams as Director of Lahey Clinic

After 35 years of association with the Lahey Clinic and nearly four decades as a distinguished surgeon, Richard B. Cattell '25 has retired as director of the Clinic and president of the Clinic's Board of Trustees.

Dr. Cattell joined Dr. Frank H. Lahey in 1927, only four years after Dr. Lahey began to develop the clinic which bears his name. The Clinic grew from the original staff of four doctors to the present 80, and with it grew Dr. Cattell's surgical skill and administrative stature. He became director after Dr. Lahey's death in 1953.

Like Dr. Lahey, Dr. Cattell has become especially competent in surgery of the thyroid. He has served as president of the American Goiter Society and received the Society's "Meritorious Service Award."

Dr. Cattell received his A.B. degree from Mount Union College in Ohio. Thirty years later he was awarded an honorary D.Sc. degree from his alma mater. A member of the American Board of Surgery, Dr. Cattell has also been honored by Boston College, the Navy's Bureau of Medicine and Surgery, the Buffalo Surgical Society, the Lebanese government, and the Royal College of Surgeons in Ireland.

In addition to his work at the Clinic and the New

England Baptist Hospital, Dr. Cattell was active at the New England Deaconess, Robert Breck Brigham, Brooks, and Hahnemann hospitals. One of the Board of Governors of the American College of Surgeons and a regent of Harvard College, he has also served as president of the Interstate Postgraduate Medical Association and is on the Board of Directors of the American Cancer Society, Massachusetts Division.

The new director of the Clinic, Herbert D. Adams '29, is a native of Ogden, Utah, and received his A.B. degree from the University of California in 1925. His surgical internship and residency were taken at Massachusetts General Hospital from 1930-1935; he joined the Lahey Clinic in 1936.

During World War II he served in the Navy Medical Corps, attaining the rank of captain. He has been a member of the surgical staff at the New England Baptist and New England Deaconess Hospitals. He has also served as consultant in general and thoracic surgery — the latter being his special interest — at the Naval Hospital in Chelsea.

Dr. Adams is a Fellow of the American College of Surgeons, a Diplomate of the American Board of Surgery, a Founding Member of the American Board of Thoracic Surgery, and belongs to the American Association for Thoracic Surgery and to the New England, American, and International Surgical Societies.

Dr. Cattell

photo, Bachrach



Dr. Adams

photo, Bachrach



COMIC RELIEF

History of a Patient

PATIENT — Jones, male, age 55 years:

First seen June 6, 1961. After appropriate studies the diagnosis of a large polyp of the splenic flexure of the colon was made. On June 19, 1961, a laparotomy and a colotomy were performed and the polyp was removed. Uncomplicated convalescence ensued. The patient elected to pay his bill in four instalments. At the third instalment the patient wrote the following letter:

October 27, 1961: Enclosed is my check for X dollars — the third instalment on my payment of your bill. One more payment and the polyp is mine!

to which we replied:

November 1, 1961: Dear Mr. Jones, Thank you for the check and your kind note. You are wrong about the polyp being yours in one more payment. We have got that polyp in a bottle at the hospital, and we are going to keep it, unless you want to borrow it some time and show it to somebody.

A few days later the patient waxed poetic with the following:

'Twas Jones who paraphrased the well-worn line
With "One more payment, and the polyp's mine!"

But the surgeon maintained that Jones was wrong

In words polite, immutable, and strong:

"We've got that polyp . . . and we're going to keep it . . .

(He built this wall, suggesting how to leap it.)

"Unless you want to borrow it some time

"To show someone." Ah, generous thought sublime!

With modern art now running at full throttle,
Could Jones exhibit Jones's polyp in a bottle?

In the same spirit we replied:

Yep — Jones can borrow Jones's polyp in a bottle,

But, when showing it, please enthusiasm throttle.

There's such a thing as ethics amongst us docs,
And when ignored we skid upon the rocks.

Such things as X-rays — and specimens, as polyps,

Belong to the hospital, say the legal wallops —

And when removed 'n put on exhibition,

Arouse other medicos' suspicion,

And they immediately begin surmising'

There's going on a little advertisin'.

Jones then closed the case with the final fourth payment, and these lines:

Jones is convinced: the polyp's yours.

(Turn back the crowds at museum doors.)

At first Jones' polyp was subjective,

But once removed became objective.

Objective art, now Jones discovers,

Is not for modern arty lovers.

So bless you, doctor, calm yourself;

Return the polyp to its shelf.

There're many bottles more diverting

For exhibition and inverting.



THREE MEN IN TANDEM

Story of the Henry Phipps Institute

by Theodore H. Ingalls '33

On March 24, 1882 when Robert Koch exhibited proof to the world of a single causative agent for such diverse manifestations of tuberculosis as phthisis, scrofula and pleurisy, not everyone, even among practitioners and professors of medicine, was ready to listen. The great Virchow, acknowledged peer of world pathology, could not and would not entertain an idea so shocking that it seemed an affront to a whole lifetime's teaching and experience. Many practitioners found their whole way of thinking about consumption disturbed and indeed felt their doctor-patient relationship to be threatened since for years they had described the disease to their patients as a constitutional and hereditary weakness.

Virchow himself was in the audience that night at the meeting of the Berlin Physiological Society, but neither he nor any of the other listeners had comments, questions or encomiums — least of all encomiums — for Koch, as he read his paper. Berlin pathologists were safely dissociated, for the night at least, from sponsorship of a meeting which might have implied endorsement of Koch's views and his doctrine. "Tuberculosis is a contagious disease" was as revolutionary in its simplicity as Columbus' "the world is round" or the troublesome Malthusian fact that "man is outbreeding his food supply."

Younger men with more resiliency and less to lose than the Virchows, however, were profoundly impressed in Germany, England, even in America, when the blue-eyed little professor with the carefully clipped beard recounted his 13 experiments, laid down his famous postulates, and summarized with devastating clarity the implications for society of his work:

In the future, the contest against this dreadful plague of mankind will not be with something undefined, but with a tangible parasite whose conditions of life are for the most part known and can be explored further. . . . Of primary importance, insofar as it lies within human power to do so, is to shut off the source from which infectious matter flows. One of these sources and certainly the main one is the sputum of the consumptive.

During the rest of the decade Koch's ideas received world-wide dissemination and confirmation, but the full implications of the fact that consumption spreads in slow motion as a contagious disease took many years to sink into professional consciousness and register on public behavior. The significance of the discovery was deprecated by many physicians, not wholly because of stubbornness or intolerance of new ideas, for the argument

that tuberculosis was contagious antedated Koch. Villemin had proved conclusively in the 60's that phthisis is inoculable from man or cow to the rabbit or guinea pig. But he had never demonstrated a bug. Over a century before Villemin, the Kingdom of Naples had nearly succeeded in developing the modern approach to control by compulsory registration of cases, isolation of patients in hospitals, and the decontamination or burning of their possessions. Thirty-five years before Koch's paper, Spanish Civil authorities had bullied the consumptive Chopin and his unconventional partner, George Sand, out of Spain because of the contagious nature of Chopin's illness. "At the time of leaving the inn in Barcelona" wrote Sand "the innkeeper wanted us to pay for Chopin's bed under the pretext that it was infected and that the police had given him orders to burn it."

Even in the face of proof, the full implication of the evidence was emotionally unacceptable, perhaps indigestible, to many. Should all the Brontës have been isolated from each other and society? Should Ariel have been denied his Harriet? Should Elizabeth Barrett Browning have left Wimpole Street and Keats have been advised to put his brother and his mother in a sanatorium rather than care for them himself? Of course they should, but the Romantic writers themselves would have rejected such unthinkable suggestions — unless there had been a Koch.

Romanticism was far from dead in the eighties, in the gay nineties, and even when the Twentieth Century Clubs began to spring up. In America a highly selected sample of pre-Raphaelite Galahads and, after them, Gibson Girls became hallmarks not only of social status but of romantic health. Although it was more fashionable to have good health than illness it was quite good form to be frail and consumptive and to suffer from a condition that was plaguing or had plagued Robert Louis Stevenson, Marie Bashkirtsev, Mrs. Arthur Conan Doyle and Katharine Mansfield and the "right people" in general. Nonetheless, it would hardly have been in romantic good taste to have inquired too closely into the matter of who had given it to whom or whose sputum was positive and whose was not. How to isolate them and how to take care of them? After Koch, this became the main consideration. Romantic notions would have to be jettisoned.

Not many years before Koch's discovery, Edward Livingston Trudeau had taken himself off into the back

→
Drs. Koch (top), Flick (left), and Phipps. The engraving of the Institute was taken from a menu from the 1913 banquet celebrating its opening.

Die Berliner Klinische Wochenschrift erscheint jeden Montag in der Stärke von wenigstens 14 Bogen gr. 4. Preis vierteljährlich 6 Mark. Bestellungen nehmen alle Buchhandlungen und Post-Anstalten an.

BERLINER

Verlag von August Hirschmann in Berlin.
W. Köpcke-Strasse 12.
Buchhandlung von August Hirschmann in Berlin.
(S.W. Unter den Linden 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725, 727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757, 759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789, 791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821, 823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853, 855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885, 887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981, 983, 985, 987, 989, 991, 993, 995, 997, 999, 1001, 1003, 1005, 1007, 1009, 1011, 1013, 1015, 1017, 1019, 1021, 1023, 1025, 1027, 1029, 1031, 1033, 1035, 1037, 1039, 1041, 1043, 1045, 1047, 1049, 1051, 1053, 1055, 1057, 1059, 1061, 1063, 1065, 1067, 1069, 1071, 1073, 1075, 1077, 1079, 1081, 1083, 1085, 1087, 1089, 1091, 1093, 1095, 1097, 1099, 1101, 1103, 1105, 1107, 1109, 1111, 1113, 1115, 1117, 1119, 1121, 1123, 1125, 1127, 1129, 1131, 1133, 1135, 1137, 1139, 1141, 1143, 1145, 1147, 1149, 1151, 1153, 1155, 1157, 1159, 1161, 1163, 1165, 1167, 1169, 1171, 1173, 1175, 1177, 1179, 1181, 1183, 1185, 1187, 1189, 1191, 1193, 1195, 1197, 1199, 1201, 1203, 1205, 1207, 1209, 1211, 1213, 1215, 1217, 1219, 1221, 1223, 1225, 1227, 1229, 1231, 1233, 1235, 1237, 1239, 1241, 1243, 1245, 1247, 1249, 1251, 1253, 1255, 1257, 1259, 1261, 1263, 1265, 1267, 1269, 1271, 1273, 1275, 1277, 1279, 1281, 1283, 1285, 1287, 1289, 1291, 1293, 1295, 1297, 1299, 1301, 1303, 1305, 1307, 1309, 1311, 1313, 1315, 1317, 1319, 1321, 1323, 1325, 1327, 1329, 1331, 1333, 1335, 1337, 1339, 1341, 1343, 1345, 1347, 1349, 1351, 1353, 1355, 1357, 1359, 1361, 1363, 1365, 1367, 1369, 1371, 1373, 1375, 1377, 1379, 1381, 1383, 1385, 1387, 1389, 1391, 1393, 1395, 1397, 1399, 1401, 1403, 1405, 1407, 1409, 1411, 1413, 1415, 1417, 1419, 1421, 1423, 1425, 1427, 1429, 1431, 1433, 1435, 1437, 1439, 1441, 1443, 1445, 1447, 1449, 1451, 1453, 1455, 1457, 1459, 1461, 1463, 1465, 1467, 1469, 1471, 1473, 1475, 1477, 1479, 1481, 1483, 1485, 1487, 1489, 1491, 1493, 1495, 1497, 1499, 1501, 1503, 1505, 1507, 1509, 1511, 1513, 1515, 1517, 1519, 1521, 1523, 1525, 1527, 1529, 1531, 1533, 1535, 1537, 1539, 1541, 1543, 1545, 1547, 1549, 1551, 1553, 1555, 1557, 1559, 1561, 1563, 1565, 1567, 1569, 1571, 1573, 1575, 1577, 1579, 1581, 1583, 1585, 1587, 1589, 1591, 1593, 1595, 1597, 1599, 1601, 1603, 1605, 1607, 1609, 1611, 1613, 1615, 1617, 1619, 1621, 1623, 1625, 1627, 1629, 1631, 1633, 1635, 1637, 1639, 1641, 1643, 1645, 1647, 1649, 1651, 1653, 1655, 1657, 1659, 1661, 1663, 1665, 1667, 1669, 1671, 1673, 1675, 1677, 1679, 1681, 1683, 1685, 1687, 1689, 1691, 1693, 1695, 1697, 1699, 1701, 1703, 1705, 1707, 1709, 1711, 1713, 1715, 1717, 1719, 1721, 1723, 1725, 1727, 1729, 1731, 1733, 1735, 1737, 1739, 1741, 1743, 1745, 1747, 1749, 1751, 1753, 1755, 1757, 1759, 1761, 1763, 1765, 1767, 1769, 1771, 1773, 1775, 1777, 1779, 1781, 1783, 1785, 1787, 1789, 1791, 1793, 1795, 1797, 1799, 1801, 1803, 1805, 1807, 1809, 1811, 1813, 1815, 1817, 1819, 1821, 1823, 1825, 1827, 1829, 1831, 1833, 1835, 1837, 1839, 1841, 1843, 1845, 1847, 1849, 1851, 1853, 1855, 1857, 1859, 1861, 1863, 1865, 1867, 1869, 1871, 1873, 1875, 1877, 1879, 1881, 1883, 1885, 1887, 1889, 1891, 1893, 1895, 1897, 1899, 1901, 1903, 1905, 1907, 1909, 1911, 1913, 1915, 1917, 1919, 1921, 1923, 1925, 1927, 1929, 1931, 1933, 1935, 1937, 1939, 1941, 1943, 1945, 1947, 1949, 1951, 1953, 1955, 1957, 1959, 1961, 1963, 1965, 1967, 1969, 1971, 1973, 1975, 1977, 1979, 1981, 1983, 1985, 1987, 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019, 2021, 2023, 2025, 2027, 2029, 2031, 2033, 2035, 2037, 2039, 2041, 2043, 2045, 2047, 2049, 2051, 2053, 2055, 2057, 2059, 2061, 2063, 2065, 2067, 2069, 2071, 2073, 2075, 2077, 2079, 2081, 2083, 2085, 2087, 2089, 2091, 2093, 2095, 2097, 2099, 2101, 2103, 2105, 2107, 2109, 2111, 2113, 2115, 2117, 2119, 2121, 2123, 2125, 2127, 2129, 2131, 2133, 2135, 2137, 2139, 2141, 2143, 2145, 2147, 2149, 2151, 2153, 2155, 2157, 2159, 2161, 2163, 2165, 2167, 2169, 2171, 2173, 2175, 2177, 2179, 2181, 2183, 2185, 2187, 2189, 2191, 2193, 2195, 2197, 2199, 2201, 2203, 2205, 2207, 2209, 2211, 2213, 2215, 2217, 2219, 2221, 2223, 2225, 2227, 2229, 2231, 2233, 2235, 2237, 2239, 2241, 2243, 2245, 2247, 2249, 2251, 2253, 2255, 2257, 2259, 2261, 2263, 2265, 2267, 2269, 2271, 2273, 2275, 2277, 2279, 2281, 2283, 2285, 2287, 2289, 2291, 2293, 2295, 2297, 2299, 2301, 2303, 2305, 2307, 2309, 2311, 2313, 2315, 2317, 2319, 2321, 2323, 2325, 2327, 2329, 2331, 2333, 2335, 2337, 2339, 2341, 2343, 2345, 2347, 2349, 2351, 2353, 2355, 2357, 2359, 2361, 2363, 2365, 2367, 2369, 2371, 2373, 2375, 2377, 2379, 2381, 2383, 2385, 2387, 2389, 2391, 2393, 2395, 2397, 2399, 2401, 2403, 2405, 2407, 2409, 2411, 2413, 2415, 2417, 2419, 2421, 2423, 2425, 2427, 2429, 2431, 2433, 2435, 2437, 2439, 2441, 2443, 2445, 2447, 2449, 2451, 2453, 2455, 2457, 2459, 2461, 2463, 2465, 2467, 2469, 2471, 2473, 2475, 2477, 2479, 2481, 2483, 2485, 2487, 2489, 2491, 2493, 2495, 2497, 2499, 2501, 2503, 2505, 2507, 2509, 2511, 2513, 2515, 2517, 2519, 2521, 2523, 2525, 2527, 2529, 2531, 2533, 2535, 2537, 2539, 2541, 2543, 2545, 2547, 2549, 2551, 2553, 2555, 2557, 2559, 2561, 2563, 2565, 2567, 2569, 2571, 2573, 2575, 2577, 2579, 2581, 2583, 2585, 2587, 2589, 2591, 2593, 2595, 2597, 2599, 2601, 2603, 2605, 2607, 2609, 2611, 2613, 2615, 2617, 2619, 2621, 2623, 2625, 2627, 2629, 2631, 2633, 2635, 2637, 2639, 2641, 2643, 2645, 2647, 2649, 2651, 2653, 2655, 2657, 2659, 2661, 2663, 2665, 2667, 2669, 2671, 2673, 2675, 2677, 2679, 2681, 2683, 2685, 2687, 2689, 2691, 2693, 2695, 2697, 2699, 2701, 2703, 2705, 2707, 2709, 2711, 2713, 2715, 2717, 2719, 2721, 2723, 2725, 2727, 2729, 2731, 2733, 2735, 2737, 2739, 2741, 2743, 2745, 2747, 2749, 2751, 2753, 2755, 2757, 2759, 2761, 2763, 2765, 2767, 2769, 2771, 2773, 2775, 2777, 2779, 2781, 2783, 2785, 2787, 2789, 2791, 2793, 2795, 2797, 2799, 2801, 2803, 2805, 2807, 2809, 2811, 2813, 2815, 2817, 2819, 2821, 2823, 2825, 2827, 2829, 2831, 2833, 2835, 2837, 2839, 2841, 2843, 2845, 2847, 2849, 2851, 2853, 2855, 2857, 2859, 2861, 2863, 2865, 2867, 2869, 2871, 2873, 2875, 2877, 2879, 2881, 2883, 2885, 2887, 2889, 2891, 2893, 2895, 2897, 2899, 2901, 2903, 2905, 2907, 2909, 2911, 2913, 2915, 2917, 2919, 2921, 2923, 2925, 2927, 2929, 2931, 2933, 2935, 2937, 2939, 2941, 2943, 2945, 2947, 2949, 2951, 2953, 2955, 2957, 2959, 2961, 2963, 2965, 2967, 2969, 2971, 2973, 2975, 2977, 2979, 2981, 2983, 2985, 2987, 2989, 2991, 2993, 2995, 2997, 2999, 3001, 3003, 3005, 3007, 3009, 3011, 3013, 3015, 3017, 3019, 3021, 3023, 3025, 3027, 3029, 3031, 3033, 3035, 3037, 3039, 3041, 3043, 3045, 3047, 3049, 3051, 3053, 3055, 3057, 3059, 3061, 3063, 3065, 3067, 3069, 3071, 3073, 3075, 3077, 3079, 3081, 3083, 3085, 3087, 3089, 3091, 3093, 3095, 3097, 3099, 3101, 3103, 3105, 3107, 3109, 3111, 3113, 3115, 3117, 3119, 3121, 3123, 3125, 3127, 3129, 3131, 3133, 3135, 3137, 3139, 3141, 3143, 3145, 3147, 3149, 3151, 3153, 3155, 3157, 3159, 3161, 3163, 3165, 3167, 3169, 3171, 3173, 3175, 3177, 3179, 3181, 3183, 3185, 3187, 3189, 3191, 3193, 3195, 3197, 3199, 3201, 3203, 3205, 3207, 3209, 3211, 3213, 3215, 3217, 3219, 3221, 3223, 3225, 3227, 3229, 3231, 3233, 3235, 3237, 3239, 3241, 3243, 3245, 3247, 3249, 3251, 3253, 3255, 3257, 3259, 3261, 3263, 3265, 3267, 3269, 3271, 3273, 3275, 3277, 3279, 3281, 3283, 3285, 3287, 3289, 3291, 3293, 3295, 3297, 3299, 3301, 3303, 3305, 3307, 3309, 3311, 3313, 3315, 3317, 3319, 3321, 3323, 3325, 3327, 3329, 3331, 3333, 3335, 3337, 3339, 3341, 3343, 3345, 3347, 3349, 3351, 3353, 3355, 3357, 3359, 3361, 3363, 3365, 3367, 3369, 3371, 3373, 3375, 3377, 3379, 3381, 3383, 3385, 3387, 3389, 3391, 3393, 3395, 3397, 3399, 3401, 3403, 3405, 3407, 3409, 3411, 3413, 3415, 3417, 3419, 3421, 3423, 3425, 3427, 3429, 3431, 3433, 3435, 3437, 3439, 3441, 3443, 3445, 3447, 3449, 3451, 3453, 3455, 3457, 3459, 3461, 3463, 3465, 3467, 3469, 3471, 3473, 3475, 3477, 3479, 3481, 3483, 3485, 3487, 3489, 3491, 3493, 3495, 3497, 3499, 3501, 3503, 3505, 3507, 3509, 3511, 3513, 3515, 3517, 3519, 3521, 3523, 3525, 3527, 3529, 3531, 3533, 3535, 3537, 3539, 3541, 3543, 3545, 3547, 3549, 3551, 3553, 3555, 3557, 3559, 3561, 3563, 3565, 3567, 3569, 3571, 3573, 3575, 3577, 3579, 3581, 3583, 3585, 3587, 3589, 3591, 3593, 3595, 3597, 3599, 3601, 3603, 3605, 3607, 3609, 3611, 3613, 3615, 3617, 3619, 3621, 3623, 3625, 3627, 3629, 3631, 3633, 3635, 3637, 3639, 3641, 3643, 3645, 3647, 3649, 3651, 3653, 3655, 3657, 3659, 3661, 3663, 3665, 3667, 3669, 3671, 3673, 3675, 3677, 3679, 3681, 3683, 3685, 3687, 3689, 3691, 3693, 3695, 3697, 3699, 3701, 3703, 3705, 3707, 3709, 3711, 3713, 3715, 3717, 3719, 3721, 3723, 3725, 3727, 3729, 3731, 3733, 3735, 3737, 3739, 3741, 3743, 3745, 3747, 3749, 3751, 3753, 3755, 3757, 3759, 3761, 3763, 3765, 3767, 3769, 3771, 3773, 3775, 3777, 3779, 3781, 3783, 3785, 3787, 3789, 3791, 3793, 3795, 3797, 3799, 3801, 3803, 3805, 3807, 3809, 3811, 3813, 3815, 3817, 3819, 3821, 3823, 3825, 3827, 3829, 3831, 3833, 3835, 3837, 3839, 3841, 3843, 3845, 3847, 3849, 3851, 3853, 3855, 3857, 3859, 3861, 3863, 3865, 3867, 3869, 3871, 3873, 3875, 3877, 3879, 3881, 3883, 3885, 3887, 3889, 3891, 3893, 3895, 3897, 3899, 3901, 3903, 3905, 3907, 3909, 3911, 3913, 3915, 3917, 3919, 3921, 3923, 3925, 3927, 3929, 3931, 3933, 3935, 3937, 3939, 3941, 3943, 3945, 3947, 3949, 3951, 3953, 3955, 3957, 3959, 3961, 3963, 3965, 3967, 3969, 3971, 3973, 3975, 3977, 3979, 3981, 3983, 3985, 3987, 3989, 3991, 3993, 3995, 3997, 3999, 4001, 4003, 4005, 4007, 4009, 4011, 4013, 4015, 4017, 4019, 4021, 4023, 4025, 4027, 4029, 4031, 4033, 4035, 4037, 4039, 4041, 4043, 4045, 4047, 4049, 4051, 4053, 4055, 4057, 4059, 4061, 4063, 4065, 4067, 4069, 4071, 4073, 4075, 4077, 4079, 4081, 4083, 4085, 4087, 4089, 4091, 4093, 4095, 4097, 4099, 4101, 4103, 4105, 4107, 4109, 4111, 4113, 4115, 4117, 4119, 4121, 4123, 4125, 4127, 4129, 4131, 4133, 4135, 4137, 4139, 4141, 4143, 4145, 4147, 4149, 4151, 4153, 4155, 4157, 4159, 4161, 4163, 4165, 4167, 4169, 4171, 4173, 4175, 4177, 4179, 4181, 4183, 4185, 4187, 4189, 4191, 4193, 4195, 4197, 4199, 4201, 4203, 4205, 4207, 4209, 4211, 4213, 4215, 4217, 4219, 4221, 4223, 4225, 4227, 4229, 4231, 4233, 4235, 4237, 4239, 4241, 4243, 4245, 4247, 4249, 4251, 4253, 4255, 4257, 4259, 4261, 4263, 4265, 4267, 4269, 4271, 4273, 4275, 4277, 4279, 4281, 4283, 4285, 4287, 4

country in the best tradition of Thoreau, Lanier, and others for whom a change of residence had been prescribed. He remained in the Adirondacks to erect and supervise a magnificent institution which was a new kind of bastion against the disease for the few but not for the many. Although the principle of sanatorium care for the well-to-do and the well-connected was to prove acceptable enough to people of intelligence and means, the needed facilities for the poor and the unintelligent would be more difficult to achieve.

The well-to-do, the fashionable, the artistic and the musical, however, had no monopoly on tuberculosis. If Violetta died coughing, so did Mimi. Consumption could travel overseas, steerage as well as on A deck. In America, tuberculosis had long since established itself among rich and poor, in laborers and in scholars, in small towns and in large cities by the time Koch's words reached his listeners: "It cannot be too difficult" he had said "to render phthisical sputum harmless by suitable procedures of disinfection. . . . Besides this, the disinfection of clothes, beds and the like, which have been used by tuberculous patients, must certainly be considered." A community dimension had emerged behind the viewer as well as the Lilliputian sight that had appeared under the microscope. With characteristic perspicacity Koch had identified the larger scene as well as the smaller: "My studies have been done in the interest of the public health, and I hope that this will derive the largest profit from them."

Where the second of my three men in tandem, Lawrence Flick, first read of Koch's paper is not a matter of record, but within a matter of months of its German publication, Koch's paper had appeared in the *Canada Medical and Surgical Journal*, and in 1883 it was published again on this continent in the *Cincinnati Lancet and Clinic*. By 1885 Flick's addresses and writings gave clear evidence that he was as familiar as anyone with the newer post-Koch propter-Koch epidemiology of tuberculosis and that Flick understood the public-health implications of the three sentences quoted in the preceding paragraph better than most clinicians. Lawrence Flick had much of the sociologist in him. He was "hypermetropic" in that he could see the long view even better than he could see what was close up and magnified under the microscope. The basic science accomplishment was Koch's. Flick's contribution was going to be in preventive medicine. He began to concern himself with vital statistics, campaigns for registration, the Free Hospital for Poor Consumptives, the Society for the Prevention of Tuberculosis, and fund raising for their support.

As with so many who have devoted their lives to the conquest of consumption, Lawrence Flick's understanding of tuberculosis sprang out of his own contest with consumption that led him away from holy orders, first towards law and finally into medicine. However, with

time off from school and after outdoor activity, he conserved his strength sufficiently to graduate from Jefferson Medical School at the age of 23 in 1879, interning at "Old Blockley" just before Osler's reign there. Young Dr. Flick was about to start practice when, in the summer of 1881, he experienced a relapse of his tuberculosis and was advised to leave Philadelphia and spend six months to a year seeking the benefit of a dry and sunny climate.

On his way west he spent several months journeying through Kansas, Colorado, New Mexico, Texas and Arizona. Colorado was disappointingly cold in winter, however, and New Mexico, although invitingly warm, was, he wrote in December 1881, "the proper place, not for a man in bad health and of any refinement, but for vagabonds and ruffians. A man externally and internally ironclad who is a good shot and has some knowledge of metals, can make a fortune." Texas had "a most excellent climate but too much dust and too little to eat."

Flick kept going and by so doing followed the time-honored formula of the romantic era. Upon reaching Los Angeles he got a job in an orange grove making crates, packing oranges, drinking quarts of milk, no doubt consuming much of the Vitamin C-rich fruit and getting tanned by the actinic rays of the California sunshine. "I am now in California" he wrote "and in the land of the Angels. It is a fine place. Flowers and green trees abound. Though the nights are somewhat cool, yet in daytime you can walk about in a light coat. What this climate can do for me I do not know . . . but to give it a trial is all I can do." Like Thoreau and Trudeau, he was to regain health through outdoor activity and a change of climate.

Returning to Philadelphia in 1883 a rejuvenated man, he reopened his office on Pine Street and developed his own clinical practice into the subspecialty of treating and advising consumptives, especially the poor consumptives. They came to him in droves. Perhaps this is one reason why he was no protagonist of climatotherapy for others although he, himself, seemed to have responded to it. He knew from firsthand experience that climatotherapy would be a luxury beyond the reach of most.

During the 1880's Flick developed strong convictions about how to apply the advances in knowledge which stemmed from Koch's studies, toward the better treatment of consumption and, more importantly as far as his own contribution was to be concerned, toward prevention. In order to realize the latter objective he foresaw the need for a formal society composed of laymen as well as physicians devoted to the implementation of a program against tuberculosis. In establishing such a society in 1892, the Pennsylvania Society for the Prevention of Tuberculosis, "great care was taken to exclude persons who were inimicable to the contagious theory of tuberculosis."

The program of the new society, the first of its kind in the world, was, according to René and Jean Dubos, "so far-sighted that it provided a pattern eventually to

Dr. Ingalls, Director of the Phipps T. B. Institute, is Professor of Preventive Medicine and Epidemiology at the University of Pennsylvania Medical School.

be followed everywhere." This program proposed to control the spread of tuberculosis,

(1) by promulgating the doctrine of the contagiousness of the disease; (2) by instructing the public in practical methods of avoidance and prevention; (3) by visiting the consumptive poor and supplying them with the necessary materials with which to protect themselves against the disease and instructing them in their use; (4) by furnishing the consumptive poor with hospital treatment; (5) by cooperating with boards of health in such measures as they may adopt for the prevention of the disease; (6) by advocating the enactment of appropriate laws for the prevention of the disease; (7) by such other methods as the Society may from time to time adopt.

One of the early acts of the Society for the Prevention of Tuberculosis was to declare itself in favor of the care of consumptives in general hospitals:

"The light which modern science has thrown upon tuberculosis makes it feasible to treat the disease in a general hospital without endangering the lives of other patients. All that is necessary is that separate wards be set aside and patients be taught to practice individual preventive measures."

Flick defended the rationale of this recommendation in 1894 before the Finance Committee of Councils in Philadelphia and also urged that the city provide a special hospital for poor consumptives.

"If the first case that occurs in a family of poor people was removed to a hospital the others could be saved. Other preventive measures are useless. Where there is not enough money to buy bread it is useless to talk about disinfectants, spit cups and the like."

In the years 1895-1900, Lawrence Flick was able to demonstrate statistically the beginning of those slow but steady gains that were to accrue from the mass campaign against "The White Plague." By 1900 the days of making orange crates in California were far behind and Flick had organized and become president of the "Free Hospital for Poor Consumptives" which was ready to move from Philadelphia to White Haven, Pennsylvania as soon as \$2400—a sizeable sum considering that the annual budget had been in the neighborhood of \$2000-\$4000—could be raised to purchase a mountain site for a new hospital, to be called the "White Haven Sanatorium," on the rolling banks of the Lehigh Valley. The new name unquestionably had a good public-relations ring for, like "Magic Mountain," it conveys a connotation of hope, serenity and the promise of cure to those who care to come or to contribute; and indeed the first hope of its president was realized in 1901 when he was introduced to a retired steelmaster, Mr. Henry Phipps, by an officer of the State Board of Charities of Pennsylvania.

Mr. Phipps listened with interest to Flick's presentation of the need for a hospital for poor consumptives, paid a site-visit to White Haven and wrote out a check for \$2500 for the White Haven Sanatorium. However, Henry

Phipps had had more than a single charitable donation in mind, for after retirement from business in 1901, he decided to contribute some of his energies and part of his 50 million dollar fortune to philanthropic enterprises. Starting with a dilapidated farmhouse and a tumble-down old barn, the White Haven Sanatorium developed into a modern plant of 17 well-constructed buildings, with Lawrence Flick still at the helm at the time of his death in 1938. However, the story of the White Haven Sanatorium is something else again from that of the Henry Phipps Institute which also commenced in 1901 when Dr. Flick met Mr. Phipps.

The third of the three men in tandem was wholly sympathetic to the problems of the poor consumptive. He was born a cobbler's son. A boyhood friend and neighbor in Allegheny of Andrew and Thomas Carnegie, Henry Phipps lived at a propitious time, and in a propitious place, Pittsburgh; and like his boyhood friends was to become a "self-made" man. Although he had not gone to college, young Phipps possessed those qualities of alertness, initiative, leadership, daring, caution and foresight without which worldly success, even with good breaks, is impossible.

In 1856, at the age of 17, Henry Phipps took a course in double-entry bookkeeping and then answered an ad in a Pittsburgh newspaper for employment with the firm of "Dilworth and Bidwell, Dealers in Iron and Spikes," a propitious business indeed at a time when the "transcontinental railroad" was a dream come true and the "winning of the west" was a contemporary fact. At 21, when he was bookkeeper in a small powder firm, he had the opportunity to invest \$800 of his own money in a second trip hammer needed for the Kloran forge on Girty's Run. Although he had no formal training in business administration, chemistry, physics, metallurgy or thermodynamics, he became the Kloran bookkeeper and progressing from iron and spikes to the forging of railway axles, the Kloran specialty, and gradually getting into the steel industry with his old friend and neighbor Andrew Carnegie. In his own way Phipps was a Robert Koch, for it was Phipps who brought the observe-record-reflect attitude of science into the alchemy of iron smelting. In 1870, in association with the two Carnegie brothers and Kloran, he built a new kind of blast furnace, known as the Lucy Furnace, in Pittsburgh and then proceeded to improve the efficiency of its operation by using a new proportion of cinder to ore to produce at less cost a better grade of iron than with the old methods.

The Civil War consumed cast-iron the way it did men's bodies, and it pointed out the need and the way for a native steel industry in the same way that World War I demonstrated the necessity for manufacturing aniline dyes. The advent of the Gatling machine gun, the fantastic battle between the Monitor and the Merrimac, the repeated demonstrations that both trestles and trains would need to be made of steel, if they were to become durable, these and many other facts meant that molten



"IN THE LABORATORY, IN THE CLINIC ..."



HENRY PHIPPS INSTITUTE 1913-1961



"AND IN THE FIELD"

metal would become the lifeblood of the nation at peace and at war with girders, rails, skyscrapers, armour plates, guns and turreted battleships, its skeleton, so to speak.

After the end of the Civil War it was only a question of time before Pittsburgh would don its "crown of steel," and, before he was 30, Henry Phipps (now a member of Carnegie, Phipps and Associates) was an "Industrial Baron" in the strange new Yankee Peerage of wealth with the Astors, Vanderbilts, Carnegies, Morgans, Rockefellers, Fricks and others. In the 80's, and largely at the instigation of Henry Frick, now one of the "Associates," the Barons banded together into the huge international cartel, Carnegie Steel Co., Ltd. The ultimate coup occurred at the turn of the century when Carnegie and his associates sold out to J. P. Morgan and his associates, who were forming the United States Steel Corporation, for \$492,556,766. Henry Phipps retired in 1901 at 62, no longer a Baron. He was a Tycoon.

When Flick was looking for a patron for the White Haven Sanatorium, his arguments and ideas had deeply impressed the hardheaded businessman. His imaginative proposal for an institute for the "concentration of all available forces for the accomplishment of a single purpose in the field of Preventive Medicine" inspired Phipps to undertake the bill for such an Institute and for what today would be called a "pilot project" to see if the Institute would really work. Another hardheaded businessman, Phipps' former partner, Andrew Carnegie, took a dim view of his interest in "coddling" the consumptive poor. "Phipps" he said "keeps spilling largesse, not bettering but spoiling humanity."

After more preliminary conversations, Henry Phipps invited Lawrence Flick to visit Europe with him while they discussed plans for what turned out to be the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis. Flick had in mind an institute which was hospital-like in its function of patient care and its laboratory although differing from the usual hospital in that it undertook to exercise a community function, both in education and in public health practice. (There would be no schools of public health on this continent for a quarter of a century more.) To Flick's way of thinking, all three activities should be advantageously coordinated for the accomplishment of the institute's single purpose, the eradication ("extermination" was his word) of tuberculosis. "If we could isolate all the advanced . . . ulcerative pulmonary cases, tuberculosis could not spread in the slums in spite of unsanitary conditions," he once epitomized his strategy in a formal address before the Philadelphia College of Physicians.

Having opened its doors on February 1, 1903, the Henry Phipps Institute, housed modestly at 236-238 Pine Street in Philadelphia, functioned largely as a "free hospital for poor consumptives" during the first decade of its existence. By 1910 it was the opinion of eminent scholars to whom Mr. Phipps had turned for advice —

such men as "Popsy" Welch, Theobald Smith and the great Osler himself — that if continuity and quality of function, research direction and staffing were to be maintained at a high level, the Institute should be part of the medical operations of a great University, and in that same year, in order to provide for permanency of administration, Mr. Phipps presented the Institute to the University of Pennsylvania. His next moves were to acquire a tract of land at 7th and Lombard Streets in Philadelphia for a spacious new building, and in May 1913, he presented this elaborate new edifice, with ample clinical, laboratory and library facilities to the University of Pennsylvania with the agreement that it, or its successor edifice, would be operated on a permanent basis.

As I come to the end of this story, which like Frankie and Johnny has no end, but unlike Frankie and Johnny does have a moral — and this I will state in the last paragraph of this article — I find that what I have done is not so much to write a short biographical sketch of three men as to show the influence of one man upon another, upon another, and so on in series upon others and upon a disease, and perhaps upon medicine itself during the past century. As for the "others," I can barely mention some of those who labored at the Henry Phipps Institute, commencing with the first Director of Laboratories, a restless roving spirit, Paul Lewis, a man ahead of his time who bet his life's accomplishment on chemotherapy — and lost when the first World War put an end to the pursuit of chemotherapeutic will-o-the-wisps and other impractical pursuits.

After the War, Lewis left the Phipps to go first to the Rockefeller Institute's Department of Animal Pathology in Princeton where, among other activities he sponsored for three years the investigations of a research-minded young physician named Richard Shope. Together they set out to study the etiology of 1918-type influenza in swine. But like those who were studying the disease in human beings, they got bogged down in technical failures, not being able to distinguish in the 20's between the role of the virus and the role of *Hemophilus Influenzae*. Shope eventually won through, but the restless Lewis was unlucky again. He went off in 1930 under Rockefeller auspices to gamble with jungle yellow fever and this time lost his life to that disease in Bahia, Brazil.

After Lewis, Eugene Opie became Director of Laboratories. He had been an unsung hero as a budding instructor in Pathology when he demonstrated a relation between diabetes mellitus and the Islands of Langerhans of the pancreas. A man whose scientific stature was as grand as his personal integrity, Opie became widely sung indeed for his basic studies on inflammation in all of its aspects and for clarifying the constitutional differences between the childhood and adult types of tuberculosis. Florence Seibert with her PPD, Joe Aronson with his BCG, and Max Lurie with his laboratory studies of non-specific factors in the host which determine resistance in mice and men and rabbits are also among the "others."

The number of words used here to describe their contributions — and those of still others who are not even named here — is no index of the extent of personal worth or degree of scientific accomplishment of vanished scholars who were known as much for their affiliation with “the Phipps” as for their publications and prizes.

The twenty-five years between World Wars I and II probably marked the zenith of one-disease institutes and foundations. By 1954 over 50 years of activity had been devoted to the care of tuberculous patients; to the instruction of physicians, nurses, medical and nursing students and other tuberculosis workers from the United States and abroad; to field studies and to laboratory research on the nature of tuberculosis, its host-parasite relations, and the role of BCG and chemotherapy in ambulatory treatment and control.

The very success of this kind of program — made possible by the thinker, Koch, developed by the crusader, Flick, and supported by the industrialist, Phipps — and, of course, others all over the world — meant that some day institutions like the Henry Phipps Institute and the Trudeau Sanatorium would have to curtail, and then close down, their clinical facilities for the treatment of consumption. This welcome eventuality was foreseen long ago by Mr. Phipps.

After the aid of the Rockefeller Foundation and the Carnegie Corporation had been secured to finance \$500,000 of permanent endowment in 1926 for the Henry Phipps Institute (in which Mr. Phipps had already invested over a million and a half dollars), he drew up a legal indenture stipulating that “when in the opinion of the . . . Trustees . . . the need for such research in tuberculosis is no longer pressing . . . the said premises . . . (or the proceeds from sale) . . . will be used for the study, treatment and prevention of other diseases.” This provided the legal basis for a series of steps undertaken in the postwar period which culminated in 1954 with a letter from Dr. Esmond R. Long, then Director, to the Vice-President of Medical Affairs, Norman Topping, of the University of Pennsylvania, requesting a meeting of the University Committee on the Henry Phipps Institute in order to consider “extension of the Institute’s resources and talents into other fields.”

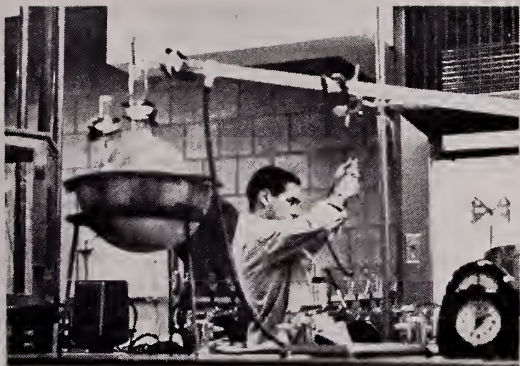
In the fall of 1954 exploratory conversations were held between members of the Henry Phipps Institute, the Dean’s Office of the University of Pennsylvania’s School of Medicine and the Health Department of the City of Philadelphia. These deliberations led to an agreement that the University would make the Phipps Institute, as a part of the Department of Public Health and Preventive Medicine, and other appropriate resources of the University, available for the development of a cooperative district health center program for the West Philadelphia area. On its part the Health Center would make its resources available for the purposes of teaching and research to the University. The Henry Phipps Institute would maintain its own identity, however, and

continue its traditional obligation of devoting staff, resources and funds to the study, treatment and prevention of tuberculosis and other diseases.

Thus, the Henry Phipps Institute, the oldest institution of its type in the country if not in the world, and certainly the first of the completely university-integrated institutes, continues today in further association with a health department and with broadened objectives of teaching, research and prevention. It is the accent on prevention that has characterized the activity of the Phipps for 60 years and that characterizes its activity today. Thus Phipps teaching in the School of Medicine is in the Department of Preventive Medicine and Phipps teaching in the Graduate School of Medicine is based on a training program supported by the United States Public Health Service. Featured is the small group seminar type of teaching with simultaneous instruction and research in epidemiology and data processing for candidates for the Master or Doctor of (Medical) Science degree who participate in supervised departmental research prior to selecting their own epidemiologic problems for independent investigation. Not all seminar participants are degree candidates. Some of the topics explored during the last two years include a comparison of Mantoux and Tine Tests in the diagnosis of tuberculosis; the results of ambulatory antimicrobial therapy in its treatment; the search for predictive factors in cardiovascular and other chronic diseases; childhood lead poisoning in Philadelphia; field and laboratory studies of ectromelia, cleft palate and cyclopia in human or animal populations; and the laboratory study of thalidomide embryopathy and of other agents causing monstrous deformities.

Always, as during the half century of its primary preoccupation with tuberculosis, the approaches to the disease areas chosen for study find their three-fold basis in the laboratory, in the clinic and in the field. “The Phipps” is not a hospital, though it is a place where hospital records can be analyzed. It is not a division of basic science, but it does have basic science laboratories in support of its own research, notably in tuberculosis, in developmental genetics, teratology and oncology. Least of all is this institute with its quiet rooms “the field.” “The field” is where the problem is, whether that be tuberculosis in the state of Pennsylvania, lead poisoning in the city of Philadelphia or deformed infants in England and Germany. The Phipps is neither the field nor the hospital nor the laboratory, but it would still be recognizable to both Lawrence Flick and to Henry Phipps as an institute for the “concentration of all available forces for the accomplishment of a single purpose in the field of preventive medicine.” Today the purpose is broader than tuberculosis, but the concentration of forces from three scientific levels of approach is yet recognizable, with the goal still the prevention of community disease.

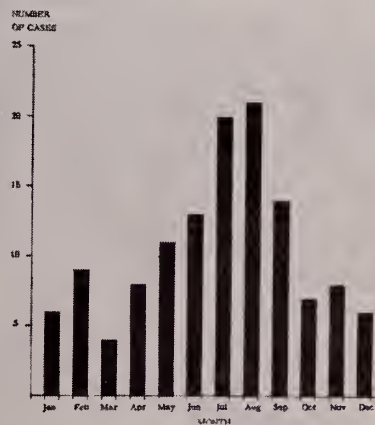
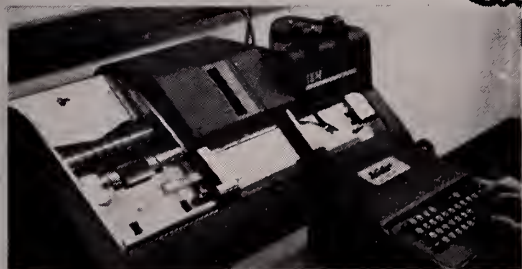
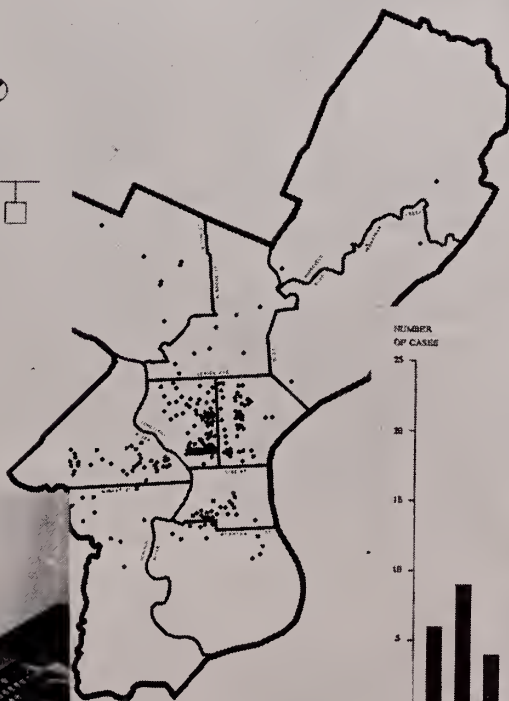
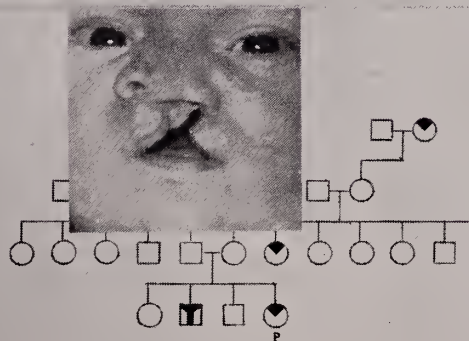
Phipps Institute, 1962. The graph at right describes statistics on lead poisoning in Philadelphia, 1956-59, 127 cases by month of diagnosis.



"IN THE LABORATORY, IN THE CLINIC ..."



THE HENRY PHIPPS INSTITUTE



"AND IN THE FIELD"

A WHALE OF A STORY

by Charles C. Harrold '41

Three summers ago, a young boy at the Coney Island beach made a startling discovery which was given considerable press coverage throughout the country. Early one morning he found a pilot whale, alive but obviously injured or sick, lying on the beach. The youngster ran to the new Coney Island Aquarium with news of his discovery and in less time than it takes to tell the story, a truck, a hoist, and the men necessary for such an undertaking were made available, and the whale was brought to the Aquarium and placed in a tank.

During the next two months there were constant and continuing reports issued on the health of this whale. Her health was poor; she refused to eat normally and was not as active as a healthy whale should be. It was, however, the first whale that the Coney Island Aquarium had secured, and the response on the part of the crowds that came to view her was heartwarming to the officials of the Aquarium—and to the local politicians. Here, without expense, the politicians had a whale. For the Aquarium pathologists there was the story of actually transporting a whale alive from the beach to Aquarium tank. But there remained the problem of restoring this aquatic mammal to normal health.

One afternoon, seven weeks after the discovery of the whale, I was minding my own business trying to take care of human mammals, when I had a telephone call from Ross Nigrelli, pathologist at the Bronx Zoo and Coney Island Aquarium. He needed me as a medical consultant to a whale. I was attracted by the state of the unusual; I listened, and ultimately took the hook and swallowed it, line and sinker. The gist of the one-sided

conversation was that although everything conceivable had been done to improve the whale's appetite, all things had failed, and the authorities felt that perhaps something unusual was being overlooked. The whale continued to regurgitate its food, and an esophageal obstruction was being considered.

Our telephone conversation lengthened; and I had some important questions to ask: did Ross have an esophagoscope, or was he going to use a drainpipe; how long was the esophagus, and how was he going to get the whale's mouth open, and had anyone ever been bitten by a whale (excluding Jonah)? To all of these questions I received very few answers. The best advice I could worm from him was to bring the biggest esophagoscope I could find and "There will be nothing to it, they are just like humans."

My family rapidly became fascinated by the prospect of this consultation. I immediately took advantage of this response and detailed a few jobs to each and everyone. To my wife, I gave the task of calling the Museum of Natural History to see if she could get some literature on the anatomy of a whale. After speaking to a pathologist at the Museum, she became convinced that I could use the esophagoscope satisfactorily, for the whale's esophageal anatomy was comparable to that of the human. Its exact length, however, remained somewhat hazy. My children were delighted to get the picnic basket, the thermos jugs, and have them all cleaned up for the coming Saturday's trip to the Aquarium. I had to make some rather stealthy plans for obtaining a very large esophagoscope.

When we arrived at the Aquarium grounds, the gatekeepers ushered us to a special parking space. In the

"I was quite absorbed in what I saw."



laboratory, I met Ross Nigrelli and his associates, and again they briefed me on the whale's history. We then walked out for a look at the whale as it swam rather slowly in a counter-clockwise fashion around its tank. Despite her poor health, she had made friends with some of her keepers and on occasion would rise to the steps and seek one particular lady who patted her head.

When the water was drained from the pool, I thought I noticed a deformity of the left lumbar region. I raised the question as to whether the whale had had an injury at this site, and might have a retroperitoneal hematoma. I was told that this deformity had been noted, but that it was not felt to be too significant.

I donned old clothes and borrowed hip boots, and descended into the now completely drained pool with two pathologists and two keepers. Another keeper constantly sprayed water on the whale with a garden hose.

We were drawing quite a crowd, which increased noticeably, according to my wife, when one of the keepers started to take a rectal temperature. When I descended into the pool, a spectator near my wife told the crowd that I was a Russian specialist who had been brought in to take a look; there was a ripple of excited talk throughout the crowd for a moment.

As a pre-op medication for the esophagoscopy, one of the pathologists brought out a 50-cc. syringe with a long needle. It contained about 15 cc. of what looked like liver extract or vitamin B complex, and this he jabbed into the whale's back. My twelve-year-old son, watching the exhibition from above, immediately turned pale green, sank down to the pavement and put his back to the wall. He saw very little of the procedure thereafter.

My pathologist friends, having completed their tasks, looked at me reassuringly and said, "Well, what do you say? Let's go." So I replied, "All right, let's open the mouth and I will put down the scope." The whale was persuaded by one of the keepers to open its mouth, and another keeper placed two padded 2 × 4 timbers between the upper and lower jaws. The whale keepers then looked at me as if to say, "Doctor, your patient is ready." With a flourish, I pulled out the esophagoscope as if it were a sword from a scabbard, walked over to the whale, and took a look into its mouth and posterior pharynx. It was an amusing and surprising sight. The tongue of this Pilot whale was about twice the size of one's doubled-up fists. The epiglottis stood up straight with the glossoepiglottic fold just as in the human being. But above it was the blowhole which went through the top of the head and had its trap-door valve on top. I was quite absorbed in what I saw, and in retrospect I would say that George Wiszlocki's elephant had nothing on my whale.

But I was suddenly, rudely and completely awakened from my reverie by a sudden whooshing, face-and-torso-

enveloping sneeze that drenched me completely. The whale had had absolutely no topical anesthesia, and rightfully enough was fighting back with some well-placed resistance. The esophagoscope, the 2 × 4's and all of the assembled pool personnel were out of the mouth and out of the way in the time it takes to tell it. There followed a distinct strategic withdrawal, during which I was supplied with a towel to dry my face and remove effluvia from my eyes, mouth and nose.

We had not given up; I was ready for another try, and my friends were in close support. We went through the same maneuvers again, and this time succeeded in introducing the esophagoscope into the cricopharyngeal sphincter. But the whale had not yet given up either, and she was not in the mood to be violated in this manner. With absolutely no premonitory signs there was a prodigious regurgitation that seemed to come from the depths of the whale's anatomy. I found myself drenched in vomitus, the quality and quantity of which I have never seen in my life. My pathologist friends, having been dreadfully concerned over the whale's lack of appetite, had in desperation force fed the patient some 15 pounds of baby squid the day before. Believe me (and I include all Boston Brahmans who consider themselves great fishermen and sailormen), until you have smelled the odor of half-decayed, half-digested baby squid from a whale's stomach, you just haven't lived.

The story had a sad ending. I had had enough; the pathologists did not want to lend me any more towels. I looked up at the crowd and found that nearly all were gone. My wife was still there, but she was holding her nose. I picked up my esophagoscope, as a defeated knight would pick up his sword, and tried to sneak away. I went into the laboratory to clean my instruments, and changed my clothes. There being no facilities for taking a shower, I used Octagon soap, green soap, pHisohex, alcohol, and finally some kind of fancy lavender soap on me and the instruments. It was of no avail. I put on my own clothes and went out to join the family picnic.

I got some of the lunch, but when I looked around there was no one with me to enjoy it. Only my friend, Ross, who had showered in much the same manner as I had, seemed to stick with me. As a reward for his loyalty, I promised that if the whale were alive the following day, I would return with voluminous quantities of topical anesthesia, and we would try again. Just about this time, an attendant called Dr. Nigrelli to the pool. When he arrived, the whale was dead. A post mortem showed pulmonary abscesses, liver abscesses (some kind of parasites, also) and a fractured lumbar vertebra. But no cancer!

It was a long ride back to Manhattan. My wife sat so far in the opposite corner that I was afraid she would spring the lock and the door would fly open. My two children rode with heads stuck out of the windows. Not a word was spoken until we arrived home, and I was directed to go in through the service entrance and leave my clothes in the laundry room. An hour's shower later, I was accepted back into my family circle.

Dr. Harrold is assistant attending physician, Memorial Cancer Center, James Ewing Hospital, associate attending physician, Roosevelt Hospital, and clinical instructor in surgery at Cornell Medical School.

Editorial

SPECULATIONS UPON THE TEMPORARY CESSATION OF RESEARCH

The future health of any society depends upon two factors: 1) the utilization of *present* knowledge concerning the prevention and treatment of disease, and 2) the discovery of *new methods* of prevention and treatment of disease. The first is attained by medical education of both those applying medical knowledge (the doctor) and those receiving the benefits (our citizens). The second depends entirely upon research. Both forces are at work at the present time. The proportion of one to the other, the degree of interest in research as compared to that in medical education, differs in different parts of the world and depends upon the economic and intellectual level of the community.

The value of research has become so generally accepted during the past decade or two, that the average citizen and average statesman hardly question the need for research appropriations. In large measure this attitude stems from the enormous advances that have taken place in the physical sciences and the panicky race going on between the Western democracies and the Communist states.

During the past fifteen years there has been a manifold increase in the expenditure of funds for medical research in the United States, so that at present about one billion dollars per year is spent annually. This does not include funds spent in other fields that often have a direct bearing upon medicine and health, such as biology, zoology, and biophysics. Further improvement in the health of our community will depend upon new discoveries that will stem from all this research. The cure or prevention of cancer, for example, will only come about by continued research. Vigorous medical research must therefore continue.

However, improvement in our health can also come from *better utilization of present knowledge*. Many patients with cancer lose their lives because the disease is not detected soon enough. With certain conditions, early diagnosis is of little importance, but with others life is saved if prompt and accurate recognition of the underlying disease is made. Errors in the care of the sick can only be diminished by better education of physicians and the lay public and by more effective use of what is already known. One can speculate and wonder what would happen if a moratorium were called on all medical research for five years, and all the money saved thereby (five billion dollars) were spent in greater and more effective dissemination and utilization of our present knowledge. It does a patient very little good if his physician treats him for rheumatism with aspirin for some years, when all that

time he had a parathyroid tumor that could have been removed before advanced and irreversible renal insufficiency developed. This is but one example of the need for competent utilization of current knowledge.

Most physicians now know that many patients with so-called essential hypertension have an underlying remediable cause for the hypertension. They know that some have a pheochromocytoma or a unilateral kidney lesion or coarctation of the aorta. They also know that it would require a period of expensive hospitalization for several days to obtain the necessary information. In only one or two out of fifty cases would anything of practical value result from such hospitalization. The physician might well, therefore, dismiss the matter from his mind, and the one curable case he could have discovered is overlooked. In short, sufficient funds are not always readily available to afford this kind of "medical luxury."

If all medical research were halted for five years, future generations would certainly suffer. New medical advances would be delayed. But if those billions of dollars that would be saved were applied to improving the standard of medical care, and if these funds became available to administer important but costly methods of diagnosis and treatment, it is not unlikely that more lives would be saved and more physical and mental help would be rendered to our population than would be lost by the five years' research that was neglected.

It is not the purpose of this discussion to deprecate the importance of medical research. This must be prosecuted vigorously and continuously. Future gains in the health of our society depend largely upon research. The point to emphasize here is that there are other neglected factors from which we may yet gain much to improve the health of our people. Insufficient emphasis is being placed on improving medical education; insufficient funds are available for good clinical teachers who do no laboratory investigation; inadequate measures are taken to enable physicians, especially the general practitioner, to obtain post-graduate medical instruction; and finally, more funds are needed simply to apply present methods of therapy to disease.

The theoretical and obviously unacceptable concept of the cessation of all medical research for five years is considered merely to emphasize the need for more effective spreading of knowledge already at hand. The health gains that might result if such non-research aspects of medicine were emphasized are purely conjectural.

SAMUEL A. LEVINE '14

FROM SHATTUCK STREET TO GENEVA:

Considerations on a Projected Move

by Albert E. Renold

MEDICAL academic life in the United States is a fabric of interwoven wanderings: from preparatory schools, to college, to graduate school, to internship and residency or fellowship training; then from one university or teaching hospital to another, with scattered escapes into institutes of pure research or into permanent practice, health services, or administration. Stationary exceptions exist, of course, but they are rather rare.

Occasionally, some threads within this fabric stand out: a brilliant move to a particularly crucial position in Washington or Bethesda, a break with tradition to undertake a challenge in a distant and presumably underdeveloped land, dedication to a scientific problem so preoccupying as to exclude even the appearance of a connection with day-to-day teaching or applied concepts. Rarely does this fabric include an almost inverted thread: a move from the fluctuating and tomorrow-oriented frontier on Shattuck Street to the region of medical academic reactionary forces which still widely prevail in Continental Europe! Perhaps, therefore, a few comments on such a projected move may be in order.

The move is to Geneva, to a university founded by Calvin in 1559, for many years an instrument of the theocracy administered by Calvinism and its early followers. In subsequent periods, the development of the city as a trading and banking center brought it increasing prosperity and a more liberal merchant aristocracy which established close relationships with the University, and provided it with many faculty members. During the seven-

teenth and eighteenth centuries the University was strong in the humanities, mathematics, and the natural sciences. There were such teachers as the historian Jean Charles Sismondi, the botanist Augustin de Candolle, and Horace Benedict de Saussure, a physicist and geologist, who published, from 1779 to 1796, his encyclopedic observations on the Alps. (de Saussure was the first to climb to the top of Mont Blanc!) His son carried on his work with emphasis upon chemistry and plant biology.

During the 18th Century natural history was closely allied with philosophy, and the University became deeply concerned with the writings of prominent philosophers such as Rousseau and Voltaire. Rousseau was a Genevan citizen whose development took place primarily abroad, while Voltaire was a frequent visitor and spent most of the latter part of his life at his country home in nearby Fernex. Voltaire received medical care from Dr. Tronchin, a colorful figure, both physician and politically influential scientist and philosopher, who was frequently an active participant in the disputations at Fernex. Dr. Tronchin believed in hygiene and fresh air and startled the court at Versailles by ordering all the palace windows opened in mid-winter.

From the beginning, a prominent feature of the intellectual life of Geneva was its strongly international character, brought about by its geographic location and

*The old city of Geneva — dominated by the →
12th Century cathedral. from Genève, Cité des Nations.*



its frequent use as a refuge from political or religious persecution. It is one of the most attractive aspects of the city that this international tradition has persisted. The city is not only host to many agencies of the United Nations, including the World Health Organization and the International Labor Organization, it also houses the headquarters of the International Red Cross, and one of the first supranational European research organizations and laboratories, the CERN (Centre Européen des Recherches Nucléaires). Affiliated with the University are the well known graduate School of International Studies, and the School of Interpreters.

Although a chair of medicine was established at the University during the eighteenth century, the Medical School proper was a relative latecomer since it was founded in 1876, while the Hôpital Cantonal, which was to become the major teaching hospital of the Medical School, had been built in its present location in 1856. In Geneva, as elsewhere in Switzerland, matters of public health as well as matters of education (including medical education) are the responsibility of the cantons (i.e. states), although a Federal commission on medical examinations and licensure sets the required standards for the country as a whole. Thus, the teaching hospital and the Medical School in Geneva are the financial responsibility of the canton of Geneva. Since state governments are prone to be sensitive to political pressures, and since voters in general appreciate good facilities for medical care, the system has been and continues to be successful in providing very adequate hospital facilities. On the other hand, since excellent medical education cannot be

Dr. Albert E. Renold in his office at the New England Deaconess Hospital.



separated from an atmosphere of independent inquiry provided by the active pursuit of research, and since medical research increasingly requires the availability of means greater than those available to rather small population units, the full adequacy of the medical education to be provided in the future has come under critical scrutiny here as elsewhere in primarily state-supported institutions. It is unfortunately true that voter interest in research as a long-range approach to better conditions of life is still notably less in Europe than in the States.

TEN years ago, in order to provide a framework for Federal support of research, the Swiss Federal Government created the Swiss National Fund for Scientific Research. It is administered by a nonpolitical council whose chairman is the physiologist Dr. Alexander von Muralt, former collaborator of Harvard's Dr. Edwin Cohn. Initially this Fund exerted its action primarily through research grants. During the last few years, however, the Council decided to contribute further to the stimulation of research at Swiss universities by financing new full-time and permanent positions whose primary function would be to promote research in close association with the undergraduate and graduate life of the universities. These positions and units are intended to be teaching units as well as research units, although the major teaching instrument used by them is likely to be the carrying out and analysis of original research. They are thus intended to complement the teaching and research activities of the regular departments, not by monopolizing research but by providing additional and, hopefully, complementary research personnel and facilities.

The move is to the chairmanship of such a newly-created department and unit, the department and labora-

Dr. Renold, Assistant Professor of Medicine at HMS, will leave in December to assume his duties as Professor and Director of the Laboratory and Department of Clinical Biochemistry of the University of Geneva. For those familiar with Swiss academic protocol the actual wording of the appointment is "Professeur ordinaire ad personam, par appel."

He received his M.D. degree from the University of Zurich in 1947, came to Harvard in 1948 as a Research Fellow at the New England Deaconess Hospital, received his clinical training at the Peter Bent Brigham Hospital and his biochemical training with Dr. A. Baird Hastings in the Department of Biochemistry. Dr. Renold, President of the Boylston Medical Society, 1961-62, served as Coordinator of the second year pathophysiology course from 1960-62. He is currently Senior Associate in Medicine, Peter Bent Brigham Hospital, and Director of the Baker Clinic Research Laboratory, New England Deaconess Hospital. In 1960 he received the Lilly Award and medal of the American Diabetes Association for his investigations on the pathophysiology of diabetes.



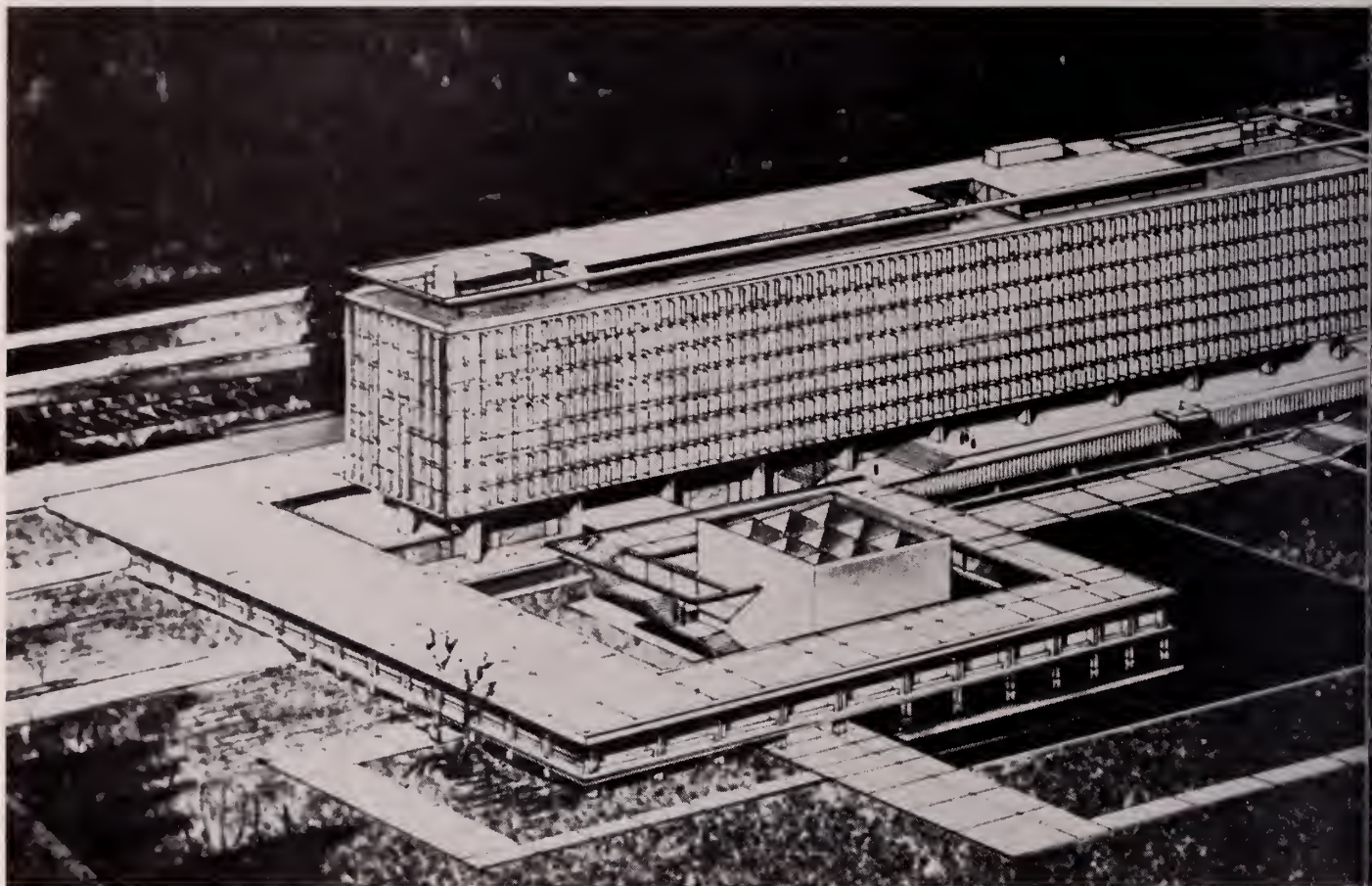
The present state of the department of clinical biochemistry, which will temporarily occupy four floors of this older structure. In the foreground is Dr. Bernard Jeanrenaud who spent three years with Dr. Thorn and Dr. Renold in Boston and will be chief of laboratories in the new department. (Dr. Jeanrenaud's wife, Dr. Arlette Jeanrenaud '59 is now active in hematological research at the Hôpital Cantonal.)

tory of clinical biochemistry. This department will be a sister department to that of biochemistry proper and closely related to it administratively. The new department will differ from the biochemistry department, however, by its location at or near the hospital (rather than the building complex devoted to the basic sciences) and by its point of view, more clearly motivated by concern with man and with disease processes. The teaching emphasis will be directed towards medical students at the clinical stage of their training and young physicians during their fellowship years. The main teaching instrument will not be the time-honored amphitheatre lectures, but seminars and practical exposure to specific research problems and questions. The department will have close liaison with the clinical departments, but it will not have direct responsibility for even a small number of beds. Although the department was created as a result of the initiative taken by the National Fund, it will also rely for its support on the University proper, and thus on the Canton of Geneva, while its initial instrumentation will be helped by a grant from the Nestlé Company, which has its world headquarters in nearby Vevey.

As this position gradually evolved in the course of conversation and correspondence between the Harvard Medical School and the University of Geneva, acceptance of the implied challenge gradually became inevitable.

Such a position seemed a logical outlet for what I have come to consider the essential contribution of research-oriented physicians in the medical-school and teaching-hospital environment: to help transfer the point of view of the basic sciences to patient care, less by direct transfer of knowledge (a necessarily limited process for any one individual) than by catalyzing the destruction of the largely artificial barriers which impede the free flow of knowledge between clinical and basic science departments. During my participation in the course in pathophysiology here at Harvard, it has been my special pleasure to witness the disappearance of some interdepartmental barriers, both at the level of the student and — just as important — at the level of many participating instructors as well. The pursuit of new knowledge at the interphase of clinical and basic medical sciences cannot but catalyze the breakdown of another type of wall, leading to excessive hierarchical stratification of medical departments, a stratification which tends to produce highly undesirable intellectual barriers between students and teachers.

ALTHOUGH the degree of its emphasis is perhaps unique, this new department is not an isolated development at the University of Geneva. During the last few years, the University and the Federal National Fund have

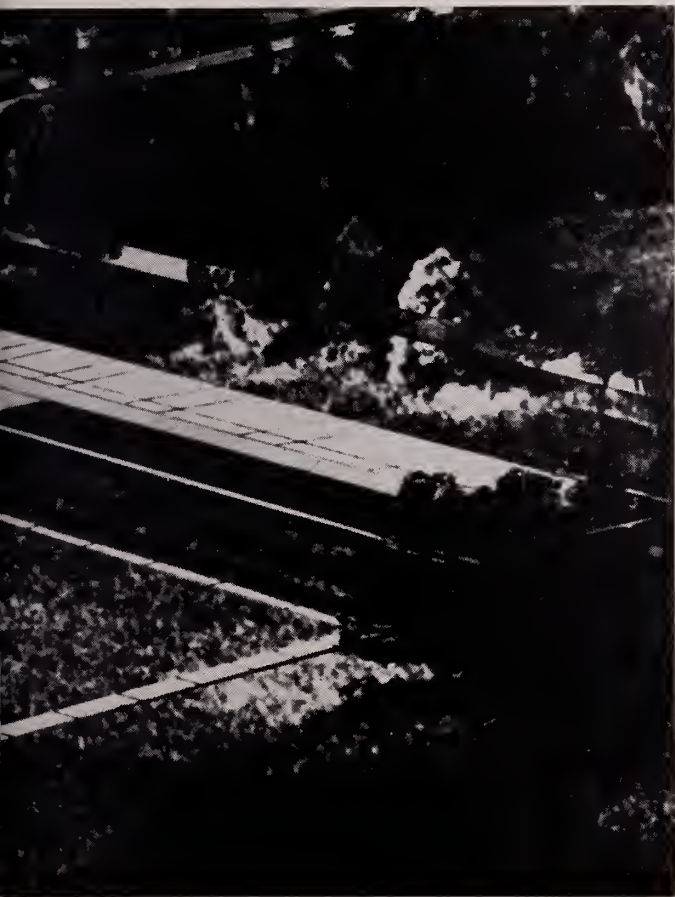


jointly sponsored a well-supported biophysics department under the direction of Dr. Edouard Kellenberg. The University has also created a full professorship in the field of pathophysiology; the first incumbent of this chair is Dr. Alex Muller, who trained at the Massachusetts General Hospital. While most full clinical professorships are still part-time, several full-time positions in the clinical specialties have been and are being created. With the help of both the University and the Federal government, the teaching hospitals have developed a clinical methodology unit primarily concerned with development of new methods applicable to both clinical work and biological research. Among Swiss universities Geneva has led in most of these recent developments.

Finally, the development of the department and laboratory of clinical biochemistry, which will devote its initial interest primarily to the metabolism of tissues and the endocrine and nutritional mechanisms controlling it, should draw strength from the historical preoccupation of Swiss medicine with the body-wide effects of endocrine glands. This historical association has its basis in the high incidence of iodine-deficiency goiters in Switzerland, as well as in the relative frequency of cretinism there (as attested to by many outspoken or facetious comments about the Swiss!). Three Genevan physicians are credited with "firsts" related to this endocrine gland: Cuendet with introducing iodine into therapy; Rilliet with the description of the hypermetabolic state sometimes induced

by iodine treatment ("Iod-Badedow"); Reverdin with the first total thyroidectomy. This special interest for matters endocrine persists both in the present department of biology and in the department of medicine, where there exists particularly active interest in the adrenal glands and the metabolism of salt and water.

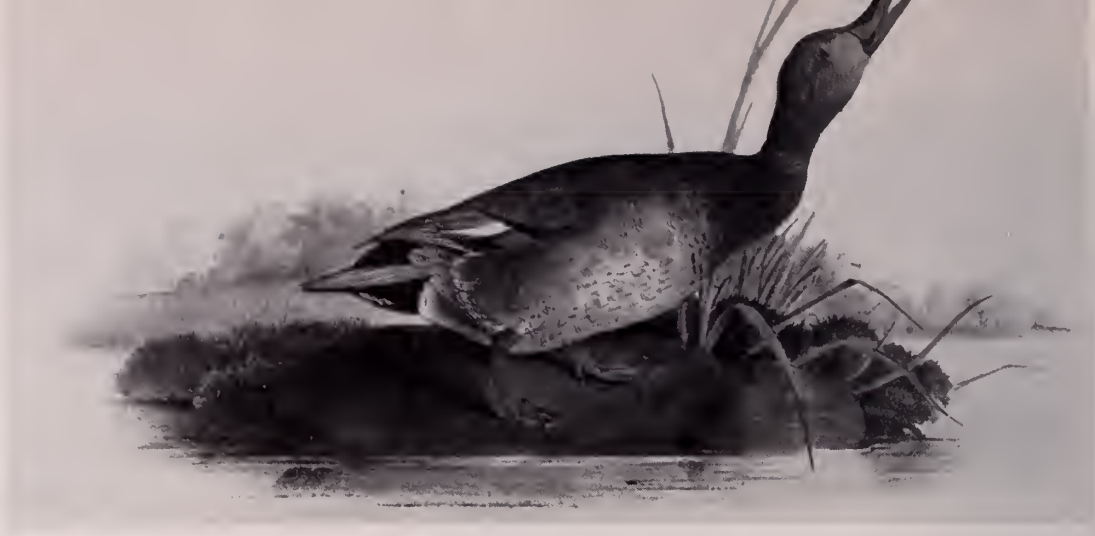
THESE are some of the more favorable features of the background against which my projected move is being undertaken. Important subjective motives exist as well. In particular, I believe strongly in the usefulness of international movements and exchanges of any kind and in any direction. Exposure to the example provided by the United States in general, and Harvard in particular, has emphasized the beneficial effects of free and continuous flow of movement within one country. Surely such moves are particularly important for the medical profession, so often tied down by provincial prejudices frequently expressed not only in texts, but, particularly, in the spirit of the licensing laws of most nations and states (i.e., the education given elsewhere is *a priori* considered inferior). Free international exchange and movement during our professional lives will bring us physicians (as well as philosophers) closer to Benjamin Franklin's hope "that a thorough knowledge of the rights of man may pervade all nations of the earth, so that a philosopher may set his foot anywhere on its surface and say: This is my country."



At left is a model of the new World Health Organization building, which is in the neighborhood of the present European headquarters of the U.N. An international competition for its design was won by the late Swiss architect, Jean Tschumi. Construction is well under way and will be completed in 1965. The main building is twelve stories high and 450 feet long and will be joined by a semidetached office building and the extensive library which is presently housed in the U.N. buildings and available to members of the University. The park-like grounds surrounding the building are filled with rare trees and plants: in September, 1962, these included flowering "lilac," an Indian variety remarkably similar to the real thing and very fragrant. From the upper floors of the structure the view of Lake Geneva and Mont-Blanc beyond is magnificent.

In the photograph below the new structure is plainly visible behind the Hôpital Catonal, the University's teaching hospital. At left center in this view of the main building is the entrance of the original building with the date — 1865 — under the clock. In 1953 was added the out-patient department, of which an entire floor is devoted to part of the Clinical Methodology Unit mentioned in the text. Currently under construction are an extensive research facilities wing and new housing for the in-patient department.





THOMAS MAYO BREWER, M.D.



... A Blackbird and Duck, Sparrow and Mole

George E. Gifford, Jr., M.D., M.A.



THOMAS Mayo Brewer (1814-1880) was a first year student at Harvard Medical School and a budding ornithologist when John James Audubon wrote in his letter of October 2, 1836, “. . . have made good arrangements at Boston with a young Gentleman called Brewer . . .” Audubon’s “good arrangements” meant that Brewer had agreed to collect colored drawings of the eggs of rare species of birds and specimens of birds to be preserved in casks of “pale-faced” rum and sent to Audubon in London.

This “young gentleman” had received his B.A. degree at Harvard in 1835. College records indicate something of his personality. He was “advised to take private instruction in mathematics, awarded Detur, assigned part in exhibition, publically admonished by the President for repeated whisperings and indecorous conduct at prayers and public worship, reported leaving the Chapel during Sabbath Service and referred to the President — and assigned commencement part.” The year of his graduation he joined the Boston Society of Natural History, writing as his first paper for the Society’s *Journal* a defense of John James Audubon.

Brewer entered Harvard Medical School in 1836 and also studied medicine with his brother-in-law, Dr. David Humphreys Storer (1804-1891). Dr. Storer, an amateur naturalist and an outstanding physician, was professor of midwifery and medicine jurisprudence at Harvard, one of the founders of the Boston Lying-In Hospital, founder of the American Gynecological Society, one-time president of the American Medical Association and Dean of Harvard Medical School (1855-1864). Audubon’s letters to Brewer as a medical student encouraged his interest in ornithology, and one urged him to “call on our enlightened statesman D. Webster, and remind him of his kind promise to assist you in procuring specimens for me.”

BREWER was graduated from Harvard Medical School in 1838, admitted to the Massachusetts Medical Society, and began his practice as a dispensary physician in the “North End” of Boston. In 1840 Audubon entered the

An assistant in psychiatry at HMS and junior associate in psychiatry at the Peter Bent Brigham Hospital, holds an M.A. degree in the history of science from Harvard.

Opposite Page

Anas Breweri (Audubon) *Brewers Duck* VI, p. 252, 1843.
 Quiscalus Brewerii, (Audubon) *Brewer’s Black Bird*, *Birds of America*, vol. VII, plate 492, 1844.
 Scalops Breweri, (Bachman) *Brewer’s Shrew Mole*, *Quadrupeds of North America*.

following in his *Journal*: “The duck ticketed in my plate *bimaculatus* is a new species which I have named after *Brewer* of Boston.” In the *Ornithological Biography* Audubon described Brewer’s Duck, *Anas Breweri*: “I have named this duck after my friend Thomas M. Brewer of Boston, as a mark of the estimation in which I hold him as an accomplished ornithologist.”

Brewer carried on an extensive correspondence with John Bachman, Audubon’s brother-in-law, and helped obtain specimens. A note in that work reveals Brewer’s activities: “In a collection of the smaller rodentia procured for us in New England by our friend Thomas M. Brewer, Esq., an intelligent naturalist, we were surprised and gratified at finding this new species of Shrew Mole, the specimen having been obtained by Dr. L. M. Yale, at Martha’s Vineyard, an island on the coast of New England.” The new species was called Brewer’s Shrew Mole (*Scalops Breweri*).

Audubon’s last letter to Thomas M. Brewer is dated April 26, 1844:

“My Dear Friend, — I received your letter last evening, and now write to you in answer that, with God’s will and fair weather, I will leave this for Boston on the 1st or 2nd of May (next month), and you will oblige me greatly by writing the article that you so kindly promised to me when I saw you last time. I wish, should you speak of the little work on birds, that you would express *your surprise* at hearing that many of my subscribers were not willing to take the last few numbers, all of which are altogether filled with species not hitherto known, and first described by me. I have taken the liberty to name one of these birds after your good name, and I trust that you will look upon this as a memento of my constant good-wishes toward you and all of those who bear your dear name.

“With kind regards to all friends, believe me yours sincerely,

John J. Audubon

The bird referred to in the letter was Brewer’s Black-bird, *Quiscalus Brewerii*, described by Audubon in the Octavo edition of the *Birds of America* (1844). Of the bird Audubon wrote, “I think it almost superfluous to add that I have named this species after my friend Thomas M. Brewer, Esq., having so often mentioned his name when he was actively engaged in the study of ornithology, and my works containing numerous evi-

dences of the assistance he has rendered both to science and myself."

That Brewer was really an "accomplished ornithologist" was established in 1840, with his edition of Wilson's *American Ornithology*, a duodecimo volume of 750 pages and more than 300 figures. This contained his own synopsis, covering all the known birds of North America, and additional notes on life histories. At this time Brewer gave up the practice of medicine and became a contributor to the *Boston Atlas*, a Whig newspaper.

Brewer later became editor of the *Atlas*, and glimpses of his extensive civic and political activities can be seen in his letters to R. H. Dana, Jr., Horace Mann, and William Schouler, now in the Massachusetts Historical Society. As always, he still had his vocation and avocation, and in 1857, the year he left the *Atlas*, he published his *North American Oology*, an illustrated quarto volume.

Last letter from John James Audubon to Thomas Mayo Brewer — New York, April 26, 1844, Houghton Library.

New York April 26th 1844.

My Dear Friend,

I received your letter this evening, & now write to you in answer, that with a fair weather I will leave this morning on the 12 or 13 of May (next month) if you will oblige me greatly by writing a letter that you so kindly promised to me when I saw you last time.

I wish, should you speak of the little work on Birds, that you would express your surprise & having found that many subscribers were willing to take the last few numbers, all which are altogether filled with species of birds to become our desiderata by me. I have taken the liberty to name one page after your good name, as I trust that will look upon this as a monument of constant good wishes toward you and all those who bear your name.

With kind regards to all friends, believe me your sincerely

John J. Audubon

One local naturalist had studied the books intensively. In the May 30, 1858, Journal entry, H. D. Thoreau wrote of some hawk eggs and stated they were not "spherical" as Brewer says, but broad in proportion to length." Earlier, Thoreau had referred to Brewer's Synopsis of 1840 and noted May 3, 1857: "Emerson says that Brewer tells him my 'night warbler' is probably the Nashville warbler."

After leaving the editorship of the *Atlas*, Brewer went into the publishing business. His correspondence to William Warland Clapp, Henry Wadsworth Longfellow, F. G. Sanborn, and Charles Eliot Norton show his literary interest; but letters to William Brewster, Alexander Agassiz, and Spencer F. Baird show his constant ornithological bent. Brewer's last great contribution to ornithology was a collaborative effort, the classic of three quarto volumes, *A History of North American Birds*, 1874, and the posthumous *Water Birds of North America*, 1884.

In his last years Brewer became the champion of the newly introduced English sparrow. A literary battle, called the "Sparrow War," was fought against the sparrow's opponents in the pages of the *American Naturalist* and the *Atlantic Monthly*. Another Species of Sparrow, was named for Brewer by T. Cassin who expressed the following tribute to him — "my esteemed friend Thomas M. Brewer, M.D., of Boston, one who to the highest abilities and sound qualities adds an ardor in devotion to ornithological science rarely paralleled."

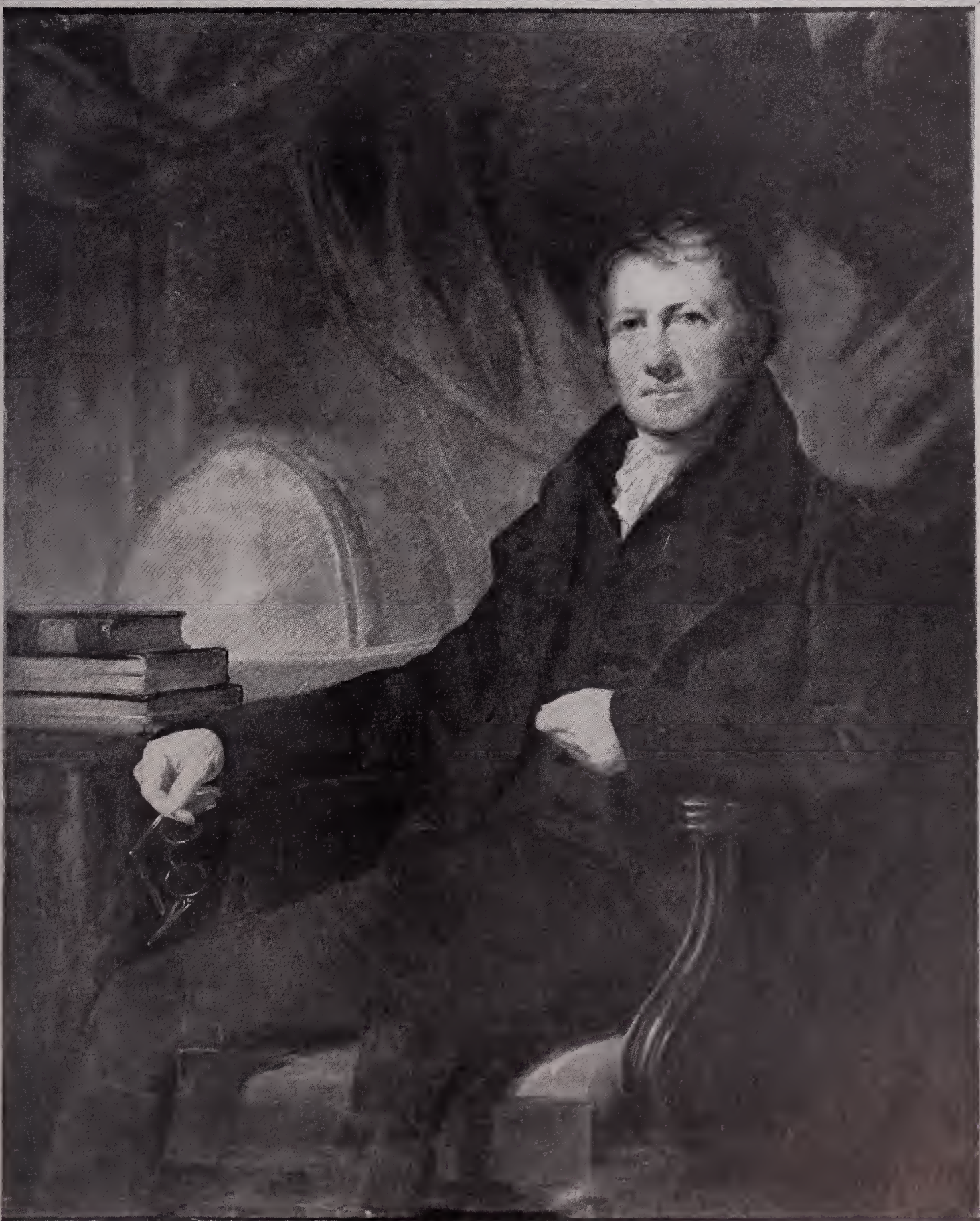
Today Harvard's Museum of Comparative Zoology possesses Brewer's extensive egg collection and his colored egg plates; the Houghton Library holds the letters of John James Audubon to Brewer from 1836 to 1844. Brewer's Duck proved to be a hybrid, and Brewer's Mole is sometimes called the Hairtailed Mole; two western birds, Brewer's Blackbird and Brewer's Sparrow, remain, however, to commemorate the memory of Thomas Mayo Brewer, M.D.

I would like to acknowledge the assistance of Wilman Brewer (Ph.D. '25), grandnephew of Thomas M. Brewer, M.D., and Mrs. Brewer.

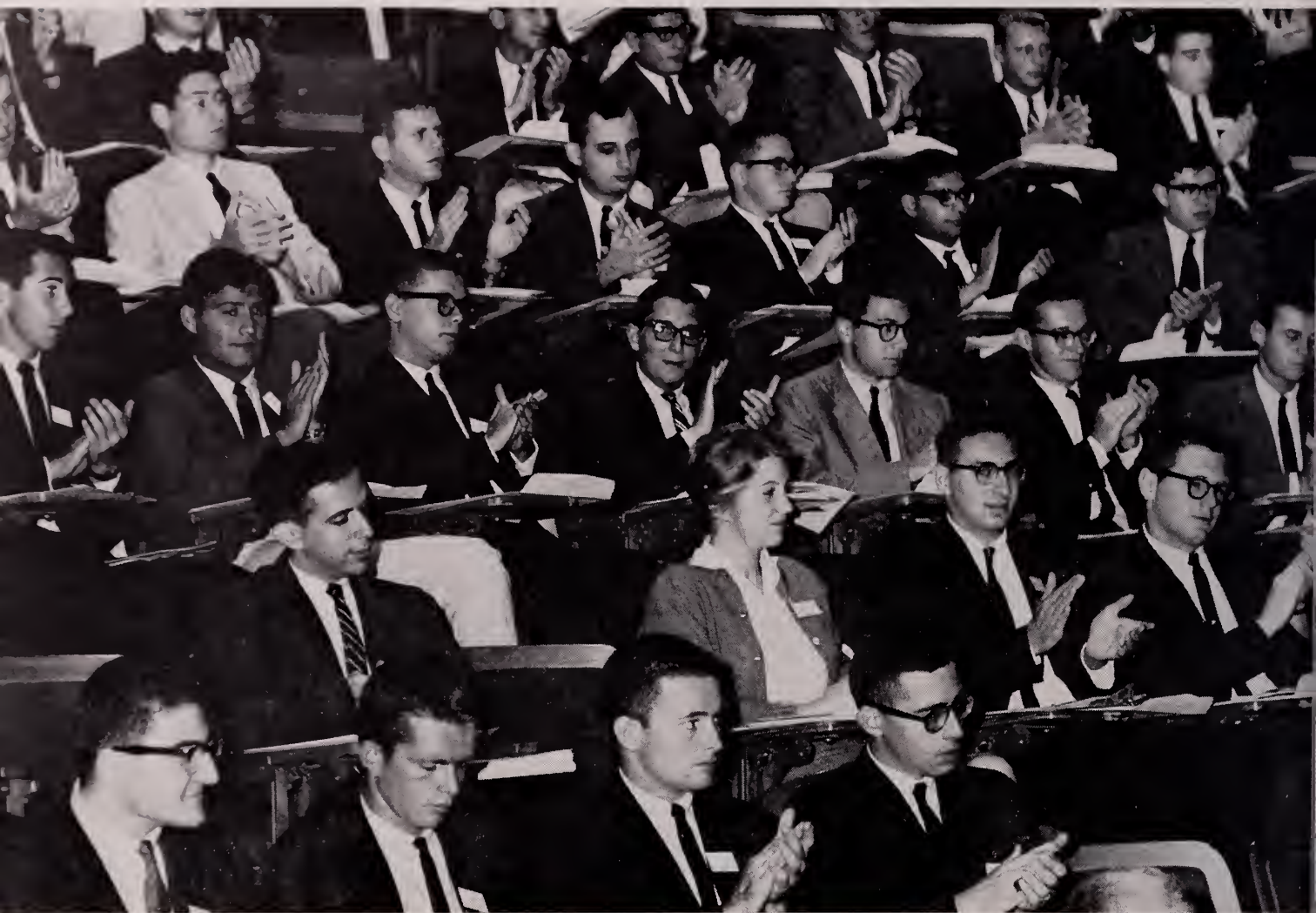
References

1. John James Audubon, *Birds of America*, 1843, VI, pp. 252-253.
2. John James Audubon, *Birds of America*, 1844, VII, pp. 345-346.
3. Audubon, J. J. and Backman, John, *The Viviparous Quadrupeds of North America*, Vol. III, pp. 173-175, plate 74.
4. Cassin, T., "Spizella Brewer," *Proceedings of the Academy of Natural Sciences*. Philadelphia: February, 1856, p. 40.

Thomas Mayo Brewer, from a portrait by John Woodhouse Audubon in the Boston Museum of Science, given to the Boston Society of Natural History by Miss Mary E. Audubon in 1909. (The date 1861 is on the back of the painting.)



THOMAS MAYO HEIBER
1848-1900



Class of 1966

photo, Herman Goslyn

REGISTRATION DAY, 1962

The opening of school brings with it a feeling of great expectation. Back come last year's first, second, and third year students, returning from a variety of summer experiences to take up the hectic challenge once more. At 9:00 a.m. on Registration Day the new first year medical and dental students group together for the first time before the faculties that have placed in their hands the future of Harvard Medicine. Following are excerpts from that first meeting.

Dr. Berry's remarks to the first year class on opening day

What does it mean to come to Harvard? There are nine faculties in this great University; consider the opportunities here in terms of such a broad spectrum of knowledge. Built into the University are 332 years of treasured tradition, of vigorous intellectual life and the great responsibility inherent in privilege and freedom. There is an expectation of excellence here, and you will instantly realize, of course, that the pursuit of excellence

calls for the most intimate and intensive kind of self-discipline.

Harvard established the teaching of medicine 180 years ago, on September 19, 1782. Thus Harvard's is the third oldest medical school in the nation, second only to the University of Pennsylvania (founded in 1765), in terms of continuous operation. Kings College — now P. and S. of Columbia University — began in 1767, but instruction ceased during the turbulent years of the American revolution.

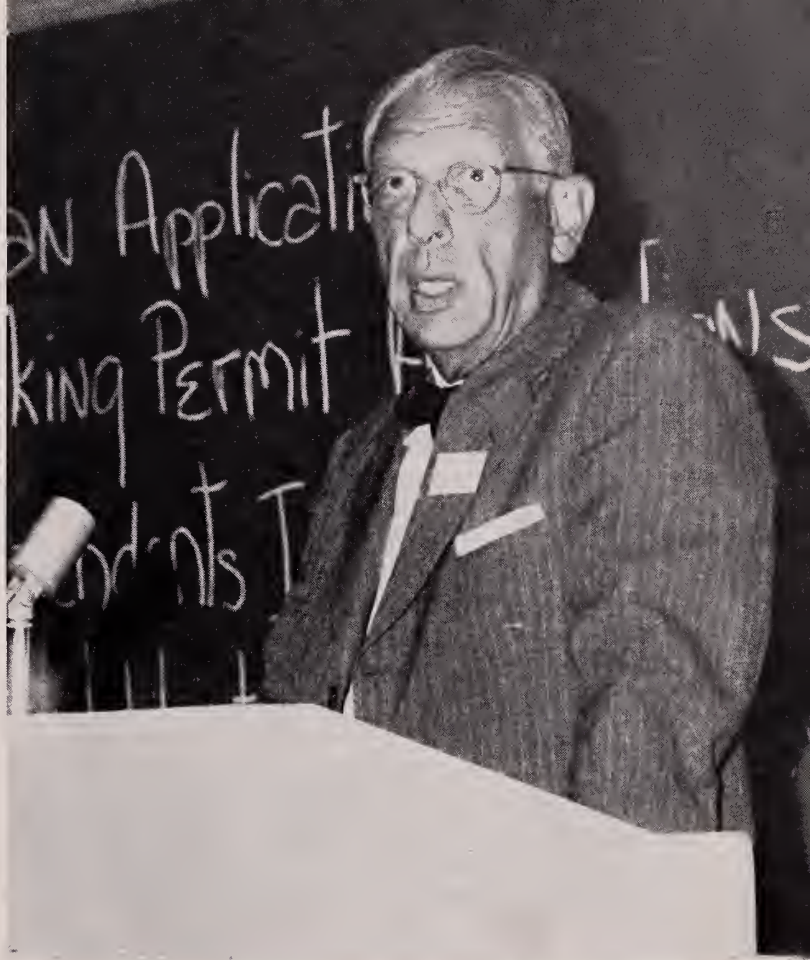
You will soon discover that, in its 180-year history, the Harvard Medical School has created a very great, perhaps the world's greatest, center for medical education, medical research, and the care of patients. You will discover here, too, that teaching, research, and patient care are parts of an indivisible triad.

On the Faculty and Staff there are currently 2,176 individuals: 523 of faculty rank, 1003 holding annual appointments, and 650 in the category of Training Status. These last are young physicians and medical scientists,

already some years past their doctoral degrees, who are working here for two to four years in a wide variety of fields. Of the student body you represent 117 of the 506 seeking medical degrees. But you are part of a much larger student body. Forty-one students are currently seeking their professional degrees in the field of dental medicine; 65 young men and women are candidates for the Ph.D. degree in one or another of the medical sciences. There are 650 physicians here, returned from the professional world to take advantage of special post-doctoral educational opportunities in Courses for Graduates. The senior residents in our major teaching hospitals hold Corporation appointments in Training Status; there are 475 young physicians who participate in teaching on the house staffs of the teaching hospitals. In addition, more than 500 physicians come as visitors to the Medical School from all over this country and from abroad to work with us for various periods of time. These groups total 2,887 "students," representing all branches of medicine and of the activities related to it. Everyone is learning here, from the professor to the first-year student. To this 3,000, therefore, one must add 2,000 more, creating a family of some 5,000 individuals dedicated to learning more about the nature of man. Because you have become a part of this large family, your learning opportunity is superb.

What has Harvard produced in 180 years in the way of physicians? In the 1700's, 11 classes graduated from the Medical School. In the 1800's, there were 98 classes. In the present century there will have been 64 classes when the present fourth-year class graduates next June. Thus, 173 classes in all have gone out of the Harvard Medical School; you are the 177th class to enter. (If the arithmetic bothers you, the answer is to be found in the fact that no classes graduated in certain years, and two did in one — 1943.)

At the moment there are 5,951 physicians living today as a result of Harvard's effort. A year ago, the total of our Medical Alumni was 5,923, a gain of only 28. A tremendous effort is required to build this body of physicians who are contributing so much to the nation and the world. Harvard has produced one tenth of all the full-time teachers of medicine and the medical sciences in our nation — certainly one of its most significant contributions. There are almost ninety medical schools in the country; Harvard Medical graduates are teaching in every one of them. When one adds those who have held appointments in Training Status and have thus been here as an intimate part of the institutions that constitute the Harvard Medical Center, this ten per cent becomes twenty-five per cent — an extraordinary contribution. In another decade the population in the United States will have grown by some 50 million people, requiring 30 more medical schools to provide



*Dr. George Packer Berry (above) and
Dr. Joseph Warren Gardella*

doctors for them. Where will the teachers come from? Principally from right here. You will be some of them.

You have now become part of this great Harvard tradition. Your immediate problem is to learn — more precisely, to learn how to learn. To learn to become life-long students of medicine. It is one of the joys of medicine that the day will not dawn when the challenge to learn is not present. You have no greater power than your ability to learn. Sharpen this power until you can attack some problem of man's ignorance that has not yet been overcome after millenia of seeking.

It would be naive to suggest that you will not face problems here. Lest you be tempted to cut corners in your work, think about the medical role you will be called upon to fill in the days ahead. Think too of the tremendous number of people who are investing in you. I have mentioned the Faculty and Staff who are devoting their lives to learning and teaching. They are constantly spurred on by the realization that knowledge is to ignorance as a cup of water is to the vast ocean, to paraphrase Sir Isaac Newton.

Another group is investing in your future: the Alumni of this School. Almost 6,000 of them, distributed all over the world, contribute generously to the School every year for the purpose of strengthening the Faculty's ability to help you. Then there's another group, your parents — and each one of you knows best what they have invested. Society, too, has contributed richly to this School over the decades. Endowment is really a means whereby one generation can provide resources for the next. The Medical School's endowment exceeds \$40,000,000, one of the largest of any medical school in this country. It does a great deal to provide the opportunities you will enjoy here. But, most important, you are investing in yourselves.

Who comprises the Class of 1966 at the Harvard Medical School? There are 117 of you, selected from a group of 946 applicants — 12.3 per cent. The nine women among you were chosen from a group of 84 applicants — about the same percentage. You come from 41 colleges in 26 states, and we are delighted to have one student from Iran. Twenty-eight of you have parents who are doctors.

You are just embarking on a fascinating way of life, and you naturally wish to launch yourselves as quickly and successfully as you can. It is a difficult but rewarding task to become a physician, particularly a good one. You have chosen the most exciting of all careers — this has been true for a long time. Let me tell you just how long. In the 10th Century B.C., a great and wise man, King Solomon of Israel, wrote that "a faithful ambassador is health." Thus, for more than 3,000 years men have realized what health and those who contribute to it mean to them.

*Dr. Perry James Culver (above) and
Dr. Roy Orval Greep*



You are soon to become leaders in mankind's search for better health. What you will be working for is our conviction — soon it will be yours — that only a healthy America can be more secure, more successful, happier. Your task will be to combine the ancient art of the healer and the modern understanding of the scientist, to fuse your laboratory experiences in the preclinical years with the actual care of patients. Francis Weld Peabody wrote in his Gay Lecture for 1927 that "the secret of the care of the patient is in caring for the patient." A copy of this Gay Lecture, "The Care of the Patient" — now a medical classic — is being given to you today to emphasize that you can be a good physician only if you care for people.

Reference to Dr. Peabody's penetrating insight into the secret of medical care brings me to a point of vital significance for you: the moral and ethical values of medicine are just as important as the scientific facts you can learn. Equating responsibility and privilege must be your constant objective. Remember how St. Luke put it: "For unto whomsoever much is given, of him shall much be required." It is a great privilege to be a doctor and to be endowed with the capacity to become a good one; the responsibility is correspondingly great.

In 1859, a young instructor in chemistry named Charles W. Eliot was teaching at the Harvard Medical School. He soon realized how poor was the quality of this nation's medical education which was still based on the apprenticeship system — a young man learning from an older practitioner. After this experience and further teaching in Harvard College, Eliot traveled in Europe and then held a professorship at the Massachusetts Institute of Technology. In 1869, he became Harvard's President.

Outstanding among President Eliot's many achievements was the great reform he led in medical education. At the Harvard Medical School he put the laboratory behind every department of medicine. In a few years modern university medical education was a fact in this School. He fathered a nation-wide movement that was tremendously accelerated by the opening of the Johns Hopkins Medical School in 1893.

In many ways Dr. Eliot was the most significant college president our country has produced. When he retired in 1909, President Lowell conferred upon him Harvard's degree of Doctor of Laws. As Dr. Eliot was resuming his seat, he was surprised to hear President Lowell ask him to stand again to receive Harvard's degree of Doctor of Medicine, with this citation: "Not in its buildings alone, but also in the instruction and research within its walls, he found the Harvard Medical School brick and left it marble."

More new knowledge in the fields of medicine and medical science has been won in the last few decades than in all previous time. Why? Because vastly more individuals are asking sophisticated questions and seeking answers. Thomas Hall said in the 1600's, "He that

nothing questioneth, nothing learneth." As you grow here, so will your appreciation that education in medicine is good only when it is good education. That is what we shall give you an opportunity to pursue here. Your teachers will live up to what Kahlil Gibran, the great Lebanese poet and philosopher, expressed so wisely about the good teacher in *The Prophet*: "If he is indeed wise, he does not bid you enter the house of his wisdom, but rather leads you to the threshold of your own mind."

Excerpts from Speeches by Dr. Greep, Thomas Delere, and Dr. Gardella

"Advice," Dr. Roy O. Greep, Dean of the Harvard School of Dental Medicine, told the gathering, "is a wonderful thing but the answer to what you do with all the words of advice and wisdom, lies in your hands."

"Perhaps it seems a bit strange to some of you that there are dental students in the audience and that I am speaking to you this morning. This is an unusual situation and I don't believe that it happens anywhere else in the country. We believe that dentistry is a part of medicine, a branch of medicine, one of the healing arts and sciences, and that those who enter the profession of dentistry need the same background in the life sciences as those entering the practice of medicine. A person with a toothache is no less sick than a person with an ache in some other part of his body; both need expert attention. We give our dental students here a very thorough background and there is no better place to get it than in the pre-clinical years of this particular curriculum."

Thomas Delere, president of the fourth year class, urged the new students to "be aggressive."

"Don't wait for this magnificent faculty to come to you. Behind every lecture there is a man or woman of unusually outstanding ability and intellect and their gratification comes largely from stimulating you to follow the lead they have set for you."

"Beyond the two years of the preclinical sciences the real concern of medicine is the human being. Be aggressive here too. Get to know human beings in all aspects. Never turn down a chance to do anything. Don't pass up an opportunity to examine a patient, to do some research and surgery in the laboratory. Don't be afraid to get your hands dirty. Be aggressive; seek out experience."

"My second point is — although you are primarily medical students, you're human beings too. Don't neglect yourselves. See the city; go to Symphony, theatres. After two or three years here, take a trip, see how big the country is. Refresh your spirit and you will return even more eager to continue medicine."

"Education in medicine," Dr. Joseph Gardella, Associate Dean in charge of Student Affairs, told the gathering, "is an active process. You are the producer of knowledge and information; you are no longer the consumer. You must pursue and create an intimate knowledge and understanding of the material that you will encounter."

"... The Faculty is concerned only with you as individuals, not with respect to your capacity in a relative sense. We are solely interested in how much of your potential you can accomplish here and all of our energies are directed toward helping you, as individuals, fulfill your potential.

"We are not concerned with your performance in a relative sense because we realize that there is an enormous change in the performance of students as they go through the years, as each finds his individual strength. You will find that, among your classmates there is a most wonderful *esprit de corps* in this School. You will find that everyone is eager to help each other, that you are striving to achieve the maximum and, consequently, there must be a healthy spirit of competition, but there is none of the competition one hears of in the distasteful sense.

"Make certain that you profit maximally from your opportunities and contacts; learn from your colleagues and offer them, in return, all of the good will and help that you can. This is a cherished tradition, and it is up to you to see that it persists."

Following the morning meeting, the class of 1966 adjourned to the Beth Israel Hospital where Herrman L. Blumgart '21, Professor of Medicine, *Emeritus*, and Special Consultant to the Dean of the Faculty of Medicine, presented the class' first clinic. Following are excerpts from his remarks.

Dr. Blumgart

I am delighted to have the privilege accorded me by Dr. Berry to join in the welcome to you this morning. May I congratulate you on your successful arrival. If the Admissions Committee has functioned with its usual accuracy, and I have every reason to believe it has, you represent the survival of the fittest.

This is a momentous day in your lives, for you are now engaged, not in a college course nor in a medical course, but in a life course; you will be students for the rest of your days. In these next four years you will have the companionship of the faculty who will be journeying the same road, because it is a life course for us also, just a bit ahead of you. There will be violent differences of opinion, we hope, for we may recall Supreme Court Justice Felix Frankfurter's comment in a dissenting opinion a short time ago: "What binds men together in fellowship is not identity of views but harmony of aims."

The habits of study you cultivate here and the sense of evidence you master will determine largely your attitude and professional ability during the remainder of your life. May I remind you of a sign which is up in Maine and is usually displayed at the beginning of the spring mud season after the drenching rains; this sign is at the bottom of a hill and states, "Choose your rut carefully. You will be in it for the next eleven miles."

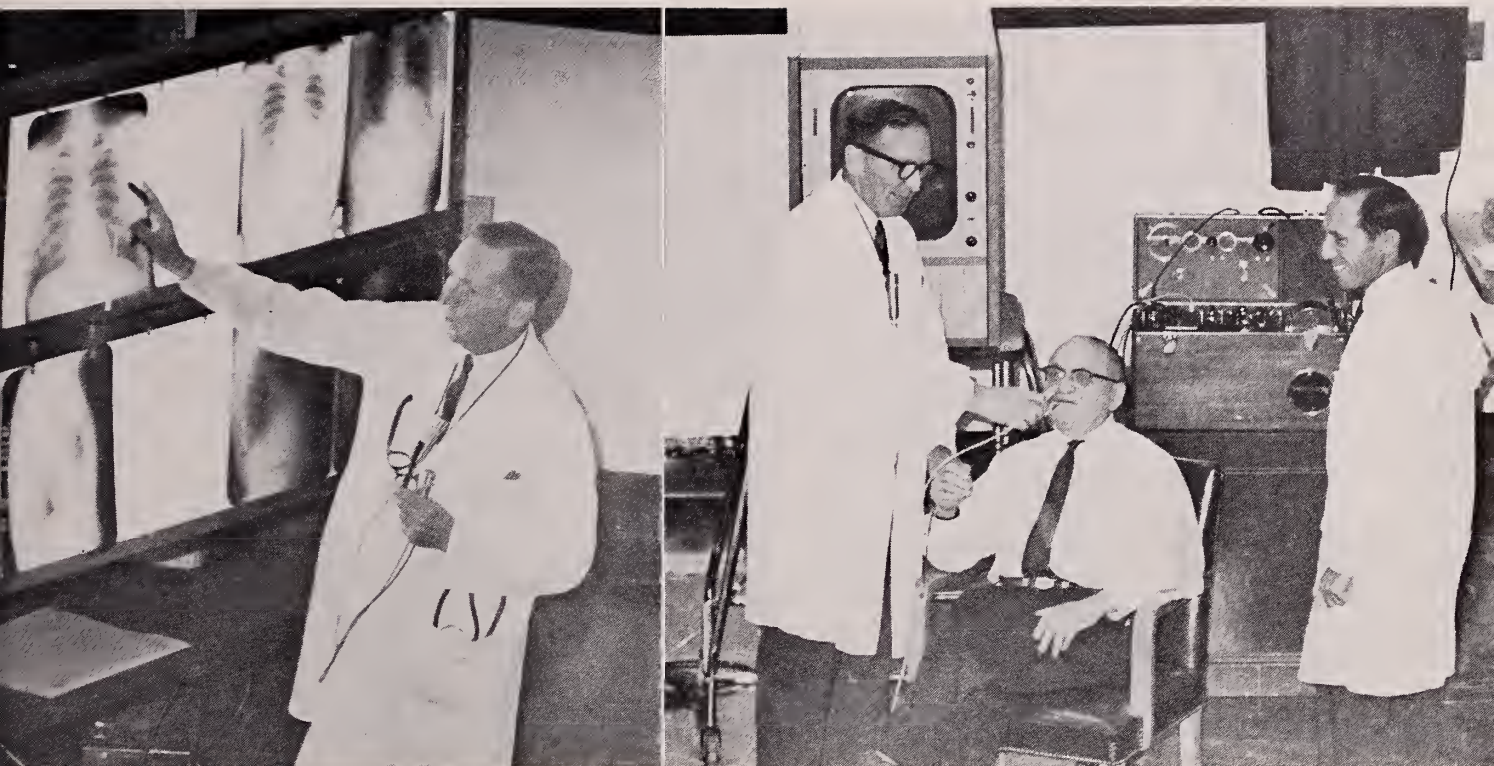
I would advise you not only to cultivate habits of

study and the reading of articles, but also, as Dr. John S. Jackson, Professor of Pathologic Anatomy, stated in his introductory address to the first year class of the Harvard Medical School in 1848: "I would only wish you not to lose sight of the patient in the interest of the case — not to forget, when you are at the bedside, that the relief of the individual before you is to be regarded as your first objective." Francis Weld Peabody, one of my teachers, once said, "The clinical picture is not that of a man sick in bed but a person who is surrounded by all the joys, hopes, sorrows, frustrations, and anxieties that surround all human beings, and particularly those who are prone to illness." Dr. George Packer Berry had this in mind when he stated in his classic treatise on Medical Education in Transition in 1953: "The aim in our teaching program is to accommodate comprehensive medicine without diminishing scientific medicine." The science of medicine is the integration of all the factual data in order to produce a biological portrait of a human being. And the art of medicine consists in the creative and skillful application of medical science to meet the needs of a human problem embodied in the patient entrusted to your care.

In the biography of illness, each disease has its own characteristic life history, just as each person has his own life history. But you will not know the disease, and you will not know the person, unless you know both. It is not enough to be concerned with what sort of disease your patient has. You must be equally concerned with what sort of patient has this disease.

This is your first clinic, and I would beg of you to regard this as a joint consultation. This is no different than if one of you were with me in an office examining a patient. Therefore you will remember in the first place that an examination is a privileged communication. Remember the words, "I will keep my mouth as it were with a bridle: if thou hast heard a word, let it die with thee." You are the custodian of a sacred trust. The information about a patient is really his information, and, therefore, I believe it is entirely correct, should anyone ask you anything about a patient after you have examined him, to say that you do not know. The information of a privileged communication belongs to him; it is his property — not yours. The wisdom of silence must be cultivated.

The purposes of this clinic this morning are several. I want to point out the many disciplines that must be focused simultaneously on the patient seeking our aid. The field of medicine is so vast and complicated, and our human abilities are so minute, that in order to comprehend disease processes, we have to split them artificially into many small compartments. The same is true of our medical curriculum; it is broken down into many separate areas. But in Nature, in Man, it is the interrelationship between these different aspects with which we as physicians have to deal. I would like to point out this morning — using one particular disease merely as an example — the different fields of knowledge that



The first clinic demonstrated to the class the interrelationship of the many specialties of medicine in the diagnosis and treatment of one particular disease — heart block. A patient was presented who exhibited the clinical triad, noted since the time of Hippocrates, namely, slow pulse, apoplectic attacks, and cerebral dizziness or fainting, without subsequent paralysis. Dr. Zoll described the anatomy and physiology of the heart by demonstration of the normal pulse, heart beat and electrocardiographic display, amplifying the cardiac sounds for the class. Several patients with complete heart block and Stokes-Adams Disease appeared before the class. Dr. Zoll demonstrated his external electric pacemaker and presented a patient who had had an electric pacemaker installed within the chest. (Above, left, Dr. Blumgart uses x-rays to show the results of heart block; right, a heart block patient, being treated with drugs, describes symptoms to Dr. Blumgart and Dr. Zoll.)

have to be tapped, and the data that must be synthesized and integrated in the physician's mind in order to understand the patient's disease and thereby to know how to help him.

The other point that I should like to bring out this morning before we begin discussion of our topic is the fact that we study at a point in time of evolving knowledge. The knowledge of no disease is complete. Indeed, one of the chief joys in our life of continuous study is observing the emergence of new insights illuminating what previously mystified us.

We know that in embryological life the development of the individual — from conception to birth and thereafter — relives the life history of the race. Our blood stream, for instance, though it contains not as much salt as presently in sea water, has in its chemical composition very much the same constituents as the ocean and probably represents what the constituents of the ocean were when we evolved out of the sea. Similarly, in embryology you will study the gill clefts of the embryo, which are analogous to those seen in fish, and their importance in explaining residual thyroid tissue at the base of the tongue. So it is in cardiology: the condition this morning may in some patients represent failure of closure of the septum between the two sides of the heart.

In the same way that ontogeny, the entire life of the individual, mirrors phylogeny, the life history of the race, one may observe that the historical development of our knowledge of a given disease entity mirrors the development of medical science over the many centuries since the dawn of civilization.

Finally, as you leave here and begin your regular assignments, I wish to repeat Osler's single bit of advice in the earnest conviction that it is of paramount importance: "Take no thought for the morrow. Live neither in the past nor in the future, but let each day's work absorb your entire energies. The student who is worrying about his future, anxious over examinations, doubting his fitness for the profession is certain not to do as well as the man who cares for nothing but the matter at hand." As you embark on your lifework, one can make certain confident predictions: 1) you will forever wish you were wiser and had more knowledge; 2) you will lament the insufficiencies of your preparation; 3) your grasp will always be less than your reach.

But you will have a rich life, not in material rewards, but rich in the excitement of the pursuit of knowledge, rich in restoring some to health, freeing more from pain, and comforting all who turn to you for help. To each of you I wish all good luck and godspeed.

CLASS OF 1966

- Akins, Carleton M.
Red Wing, Minn. (Harvard)
- Alexander, William
White Plains, N. Y. (Brandeis)
- Appel, Eugene L.
University Heights, Ohio (Cornell)
- Asher, John D.
Ithaca, N. Y. (Harvard)
- ^dAtikian, Hrair H.
Boonton, N. J. (New York Univ.)
- Baker, Alan R.
Great Neck, N. Y. (Bowdoin)
- Bauman, Dennis J.
Rochester, N. Y. (Williams)
- Beck, Laurence H.
Wilmington, Del. (Amherst)
- Bell, Russell S.
Hoopston, Ill. (Princeton)
- ^dBinder, Robert E.
Medford, Mass. (Northeastern)
- Bissell, Dwight M., Jr.
San Jose, Calif. (Harvard)
- ^dBowen, Charles R.
Selinsgrove, Pa. (Susquehanna)
- Bradley, Jane E.
New York, N. Y. (Bryn Mawr)
- Branda, Richard F.
River Grove, Ill. (Univ. of Wisconsin)
- Breeden, C. Jane
El Cajon, Calif. (Stanford)
- Brener, Bruce J.
Interlaken, N. I. (Yale)
- Buchwald, Irwin A.
Brooklyn, N. Y. (Amherst)
- Carleton, William M.
Providence, R. I. (Yale)
- Cassem, Ned H.
Omaha, Nebr. (St. Louis Univ.)
- Cihak, Robert J.
Yankton, S. Dak. (Univ. of Notre Dame)
- ^dClausen, Jack L.
Hollywood, Calif. (Stanford)
- ^dCotmore, John M.
London, England (Temple)
- Crounse, Jerome B.
Cincinnati, Ohio (Harvard)
- Crowell, Robert M.
College Park, Md. (Princeton)
- Cutler, Bruce St. J.
Newark, Del. (Princeton)
- Dale, David C.
Atlanta, Ga. (Carson-Newman)
- Daniels, Gilbert H.
Malverne, N. Y. (Yale)
- DeLong, Mahlon R.
Santa Maria, Calif. (Stanford)
- Donahue, Valentina E. C.
Brooklyn, N. Y. (Barnard)
- Finseth, Frederick J.
Portland, Ore. (Portland State Coll., Stanford)
- Fletcher, Robert H.
Newtown, Pa. (Wesleyan)
- Friedman, Joel P.
Palm Springs, Calif. (Princeton)
- Galin, Richard S.
Milwaukee, Wis. (Univ. of Wisconsin)
- Gettelfinger, Thomas C.
Louisville, Ky. (Univ. of Notre Dame)
- ^dGettleman, Lawrence M.
Miami Beach, Fla. (Rutgers)
- Gilmour, David P.
Charlotte, N. C. (Davidson)
- Ginsberg, Myron D.
Denver, Colo. (Wesleyan)
- Glass, Jonathan
New Rochelle, N. Y. (Massachusetts Inst. of Tech.)
- Glick, Thomas H. B.
Darien, Conn. (Harvard)
- Goetzl, Edward J.
Amherst, Mass. (Amherst)
- Goldman, Thomas C.
Brooklyn, N. Y. (Cornell)
- Gordon, James H.
Winchester, Mass. (Williams)
- Gordon, James S.
New York, N. Y. (Harvard)
- Gottlieb, Jeffrey A.
Mount Vernon, N. Y. (Amherst)
- ^dGracia, Robert M.
New Bedford, Mass. (Coll. of the Holy Cross)
- Grave, Gilman D.
Rye, N. Y. (Harvard)
- Greenes, Robert A.
University Heights, Ohio (Univ. of Mich.)
- Guarino, Arthur V.
Brooklyn, N. Y. (Coll. of the Holy Cross)
- Hannah, Richard J.
Weston, Mass. (Dartmouth)
- Hardman, George L.
Philadelphia, Pa. (Harvard)
- Hatem, Charles J.
Lawrence, Mass. (Boston Coll.)
- Hayes, Charles R.
Keytesville, Mo. (Yale)
- Hrehorovich, Victor R.
Bronx, N. Y. (Harvard)
- Hughes, Edward F. X.
Roslindale, Mass. (Amherst)
- Ilfeld, Frederic W., Jr.
Beverly Hills, Calif. (Yale)
- Irwin, Robert J.
Cleveland, Ohio (Denison)
- Jacobs, Edward E., Jr.
Buffalo, N. Y. (Princeton)
- Jurgeleit, H. Clement
Oceanside, N. Y. (Yale)
- Kaufman, Jay H.
Rockville Centre, N. Y. (Princeton)
- Keating, John J.
Minneapolis, Minn. (Univ. of Minnesota)
- Kempczinski, Richard F.
Brooklyn, N. Y. (Coll. of the Holy Cross)
- Kern, Michael L.
Cincinnati, Ohio (Yale)
- Koops, Herbert J.
Ridgewood, N. Y. (U. S. Military Academy)
- Koran, Lorrin M.
Los Angeles, Calif. (Harvard)

- Krainin, James M.
New York, N. Y. (Harvard)
- Krant, David A.
Atlanta, Ga. (Harvard)
- Lamb, Joan W.
Concord, Mass. (Wellesley)
- Leary, Joan M.
Roslindale, Mass. (Mt. Holyoke)
- Levine, Norman S.
Paterson, N. J. (Princeton)
- Levisohn, Steven R.
Denver, Colo. (Harvard)
- Loewenstein, Matthew S.
Forest Hills, N. Y. (Union)
- Ludden, John M.
Milwaukee, Wis. (Harvard)
- Lutz, Michael D.
Reading, Pa. (Yale)
- McNeil, Barbara J.
Dorchester, Mass. (Emmanuel)
- Mark, Eugene J.
Kent, Ohio (Oberlin)
- Marmor, Michael F.
Los Angeles, Calif. (Harvard)
- Mastroianni, Nicholas A., Jr.
Hopedale, Mass. (Harvard)
- Mendelsohn, George E.
Alton, Ill. (Harvard)
- Micheli, Lyle J.
Peru, Ill. (Harvard)
- Mogielnicki, Robert P.
Hartford, Conn. (Cornell)
- Molinoff, Perry B.
Smithtown, N. Y. (Harvard)
- Monath, Thomas P. C.
Hewlett Harbor, N. Y. (Harvard)
- ^dMulvihill, James E.
Wethersfield, Conn. (Coll. of the Holy Cross)
- Nasr, Hooshang
Tehran, Iran (Yale)
- Neisuler, Ross F.
Schenectady, N. Y. (Harvard)
- Nelson, John P.
Breckenridge, Minn. (Univ. of Notre Dame)
- Nelson, Scott H.
Colorado Springs, Colo. (Yale)
- Oren, Mark E.
Catskill, N. Y. (Cornell)
- Owen, Robert L.
Bartlesville, Okla. (Oklahoma)
- Payne, Douglas D.
Dayton, Ohio (Harvard)
- ^dPerkell, Joseph S.
Coral Gables, Fla. (Massachusetts Inst. of Tech.)
- Pincus, Theodore P.
New York, N. Y. (Columbia)
- Pine, Michael B.
New York, N. Y. (Brandeis)
- Pipkin, Robert D.
Denver, Colo. (Regis, Colorado)
- Poole, Thomas A.
Port Allegany, Pa. (Univ. of Pennsylvania)
- Proskauer, Stephen
Brookline, Mass. (Harvard)
- Rassiga, Anne L.
Long Beach, N. Y. (Bryn Mawr)
- Ravenscroft, Kent, Jr.
St. Louis, Mo. (Yale)
- Reckler, Jon M.
Denver, Colo. (Harvard)
- Richman, Janice M.
New York, N. Y. (Bryn Mawr)
- ^dRobinson, J. Leslie, Jr.
Washington, D. C. (Harvard)
- Roglieri, John L.
Scotch Plains, N. J. (Lehigh)
- Rothenberg, Richard B.
Jamaica, N. Y. (Columbia)
- Rubin, Robert H.
West Hartford, Conn. (Williams)
- Scharff, David E.
St. Louis, Mo. (Yale)
- Schoenbaum, Stephen C.
Medford, Mass. (Swarthmore)
- Scholand, Joseph F.
Spencerport, N. Y. (St. John Fisher)
- Schott, John W.
La Salle, Ill. (Johns Hopkins)
- Shiple, William U.
Norton, Mass. (Yale)
- Siegel, Arthur J.
Orlando, Fla. (Swarthmore)
- ^dSiegel, Carl L.
New York, N. Y. (Lafayette)
- Siegel, Robert C.
Kingston, Pa. (Princeton)
- Smith, Richard W.
Rochester, N. Y. (Harvard)
- ^dStanley, Robert L.
Brooklyn, N. Y. (Coll. of the Holy Cross)
- Steinberg, Alfred D.
Great Neck, N. Y. (Princeton)
- Stevenson, John E.
Viroqua, Wis. (St. Olaf)
- Strong, Steven R.
Schenectady, N. Y. (Union)
- Stubblefield, Phillip G.
Liberal, Kans. (Harvard)
- Sweetland, Ralph C.
Cambridge, Mass. (Harvard)
- Teichholz, Louis E.
Passaic, N. J. (Harvard)
- Templeton, John M., Jr.
Englewood, N. J. (Yale)
- Torop, Paul
Yonkers, N. Y. (Yale)
- Wegman, David H.
Ann Arbor, Mich. (Swarthmore)
- Weiner, Michael S.
Buffalo, N. Y. (Harvard)
- Weintraub, Bruce D.
Buffalo, N. Y. (Princeton)
- ^dWing, Kenneth R.
Cranston, R. I. (Wesleyan)
- Winig, Paul I.
Trenton, N. J. (Harvard)
- Wood, William C.
Charlotte, N. C. (Wheaton Coll.)
- Wright, Suzanne E.
Keswick, Va. (Swarthmore)
- Young, Dean F.
Dayton, Ohio (Kenyon)

^dSchool of Dental Medicine

SOMERSET HOTEL

THREE FINE RESTAURANTS

POLYNESIAN VILLAGE

Featuring Island and Cantonese Food and Drink. Dine in a setting of tropical splendor.

PRIME RIB ROOM

For fabulous Roast Ribs of Beef . . . carved and served especially for you from the Rib Room cart.


CORONET

Featuring steaks, lobsters and international dishes. Supper dancing Saturdays.

Yearly Headquarters
for
Harvard Medical
Alumni Association

SOMERSET HOTEL

W. J. CARNEY, GENERAL MGR.
400 Commonwealth Avenue
Boston
CO 7-9000



Service at Any Distance
•
Within the Means of All
•
Serving All Religions
•

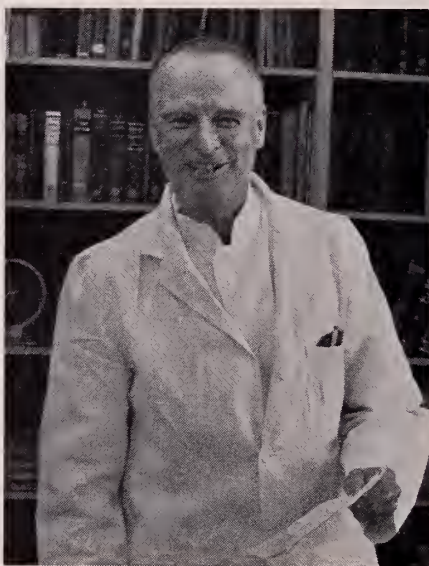
Main Office
495 Commonwealth Ave.
Boston KE 6-4110

HONORS

Bernard J. Alpers '23, professor and chairman of the department of neurology at Jefferson Medical School, was honored at the school's June commencement with the Christian R. and Mary F. Lindbach Award for distinguished teaching. Dr. Alpers is author of a well-known medical school textbook, *Clinical Neurology*, and first reported a rare malady in infants which bears his name — Alper's disease.

H. Stanley Bennett '36, Dean of the University of Chicago, Division of Biological Sciences and School of Medicine, received an honorary doctorate of science from Monmouth College on June 4, 1962.

Oliver Cope '28, associate professor of surgery at HMS and visiting surgeon at Massachusetts General Hospital, has been elected president of the American Surgical Association for 1962.



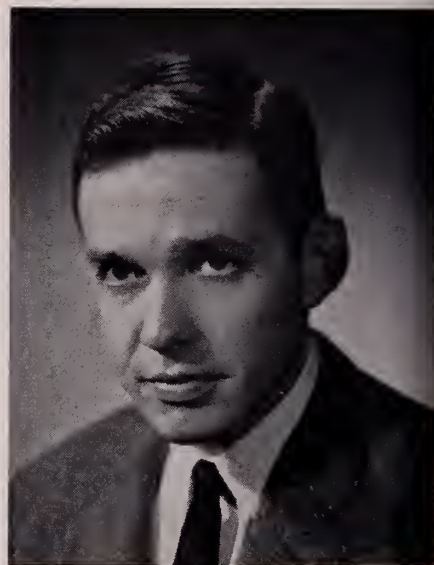
Dr. Cope

J. Englebert Dunphy '33, professor and chairman of the department of surgery at the University of Oregon Medical School, has been named one of the world's twenty-five honorary fellows in the Association of Surgeons of Great Britain and Ireland. Before joining the staff at the University of Oregon Dr. Dunphy was professor of surgery at HMS and director of the Sears Surgical Lab at Boston City Hospital.

Bertram Selverstone '41, has been elected president of the New England Neurosurgical Society for 1961-62.

Wesley W. Spink '32, professor of internal medicine at the University of Minnesota Medical School, will serve as president of the American College of Physicians in 1963. Noted for his work in brucellosis and the control of infectious diseases, he is past-president of the Minnesota Medical Foundation, the American Society for Clinical Investigation, the Central Society for Clinical Research, and the Minnesota Pathological Society. He is consultant in internal medicine for the USAF and is chairman of the expert committee on brucellosis of the WHO.

John Urquhart, III, '59, a science investigator in the National Heart Institute's Laboratory of Kidney and Electrolyte Metabolism, Section on Cardiovascular Diseases, has been named a winner of the annual Upjohn Award of the Endocrine Society, given for the best paper in Endocrinology. He shares the \$1250 prize with three Harvard investigators who also worked on the paper with him at Harvard. In 1959 Dr. Urquhart was awarded the Harvard Medical Alumni Award and the Borden Prize for Undergraduate Research at HMS.



Dr. Urquhart

Robert W. Wilkins '33, past president of the Massachusetts and American Heart Associations and chairman of the department of medicine at Boston University School of Medicine, was recently named by the American Heart Association as one of three recipients of its 1962 Gold Heart Awards.

